Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

STAATSKOERANT
VAN DIE REPUBLIEK VAN SUID-AFRIKA

REPUBLIC OF SOUTH AFRICA
GOVERNMENT GAZETTE

REGULASIEKOERANT No. 3088 | PRYS + 1c AVB 20c PRICE + 1c GST | REGULATION GAZETTE No. 3088

As 'n Nuusblad by die Poskantoor Geregistreer | BUITELANDS 30c ABROAD | *Registered at the Post Office as a Newspaper*

POSVRY · POST FREE

[Vol. 184] PRETORIA, 24 OKTOBER / OCTOBER 1980 [No. 7270

PROKLAMASIE

van die Staatspresident van die Republiek van Suid-Afrika

No. R. 203, 1980

HANDELSKEEPVAARTWET, 1951 (WET 57 VAN 1951), SOOS GEWYSIG

VERVANGING VAN DIE INTERNASIONALE KONVENSIE VIR DIE BEVEILIGING VAN MENSELEWENS OP SEE, 1960, DEUR DIE INTERNASIONALE KONVENSIE VIR DIE BEVEILIGING VAN DIE MENSELEWENS OP SEE, 1974

Kragtens die bepalings van artikel 356*bis* (1) (b) (ii) van die Handelskeepvaartwet, 1951 (Wet 57 van 1951), soos gewysig, vervang ek hierby die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960, wat in die Tweede Bylae van genoemde Wet verskyn, deur die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1974, wat in die Bylae vervat is.

Gegee onder my Hand en die Seël van die Republiek van Suid-Afrika te Pretoria, op hede die Nege-en-twintigste dag van September Eenduisend Negehonderd-en-tagtig.

M. VILJOEN, Staatspresident.

Op las van die Staatspresident-in-rade:

J. C. HEUNIS.

BYLAE

INTERNASIONALE KONVENSIE VIR DIE BEVEILIGING VAN MENSELEWENS OP SEE, 1974

ARTIKEL 1

Algemene verpligtinge ingevolge die Konvensie

(a) Die Kontrakterende Regerings verbind hulle om uitvoering te gee aan die bepalings van die huidige Konvensie en van die regulasies wat as aanhangsel daarvan aangegee word en wat geag moet word 'n integrerende deel van die huidige Konvensie te vorm. Elke verwysing na die huidige Konvensie veronderstel tegelykertyd 'n verwysing na hierdie Regulasies.

(b) Die Kontrakterende Regerings verbind hulle om alle wette, bevele, orders en regulasies uit te vaardig en om al die ander stappe te doen wat nodig mag

PROCLAMATION

by the State President of the Republic of South Africa

No. R. 203, 1980

MERCHANT SHIPPING ACT, 1951 (ACT 57 OF 1951), AS AMENDED

SUBSTITUTION FOR THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1960, OF THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

Under the powers vested in me by section 356*bis* (1) (b) (ii) of the Merchant Shipping Act, 1951 (Act 57 of 1951), as amended, I hereby substitute for the International Convention for the Safety of Life at Sea, 1960, appearing in the Second Schedule to the said Act, the International Convention for the Safety of Life at Sea, 1974, contained in the Annex hereto.

Given under my Hand and the Seal of the Republic of South Africa at Pretoria this Twenty-ninth day of September, One thousand Nine hundred and Eighty.

M. VILJOEN, State President.

By Order of the State President-in-Council:

J. C. HEUNIS.

SCHEDULE

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

ARTICLE I

General obligations under the Convention

(a) The Contracting Governments undertake to give effect to the provisions of the present Convention and the Annex thereto, which shall constitute an integral part of the present Convention. Every reference to the present Convention constitutes at the same time a reference to the Annex.

(b) The Contracting Governments undertake to promulgate all laws, decrees, orders and regulations and to take all other steps which may be necessary to give

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

wees om aan die huidige Konvensie volledig uitvoering te gee ten einde te verseker dat, wat betref die veiligheid van menselewens, 'n skip geskik is vir die diens waarvoor hy bedoel is.

ARTIKEL II

Toepassing

Die huidige Konvensie is van toepassing op skepe wat daarop geregtig is om te vaar onder die vlae van lande waarvan die regerings Kontrakterende Regerings is.

ARTIKEL III

Wette, regulasies

Die Kontrakterende Regerings verbind hulle om aan die Intergoewermentele Seevaartkonsultorganisasie (hierna die Organisasie genoem) die volgende te verstrek en by hom in te dien—

(a) vir verspreiding onder die Kontrakterende Regerings vir die inligting van hul amptenare, 'n lys van nie-regeringsagentskappe wat gemagtig is om namens hulle op te tree ten opsigte van die toepassing van maatreëls vir die beveiliging van menselewens op see;

(b) die teks van wette, dekrete, orders en regulasies wat in verband met die verskillende aangeleenthede binne die bestek van die huidige Konvensie uitgevaardig is;

(c) 'n voldoende aantal eksemplare van hul sertifikate uitgereik ooreenkomstig die bepalings van die huidige Konvensie vir verspreiding onder die Kontrakterende Regerings vir die inligting van hul amptenare.

ARTIKEL IV

Gevalle van oormag

(a) 'n Skip wat op die tydstip van sy vertrek op 'n reis nie aan die bepalings van die huidige Konvensie onderworpe is nie, word nie weens 'n afwyking van die voorgenome reis as gevolg van slegte weer of 'n ander geval van oormag aan die bepalings van die huidige Konvensie onderworpe nie.

(b) By die beoordeling van die vraag of van die bepalings van die huidige Konvensie op 'n skip van toepassing is, word geen rekening gehou met persone wat hulle as gevolg van oormag of van die verpligting van die gesagvoerder om skipbreukelinge of ander persone te vervoer, aan boord van 'n skip bevind nie.

ARTIKEL V

Vervoer van persone in noodgevalle

(a) Vir die ontruiming van persone uit 'n gebied ten einde te verhoed dat hul lewens in gevaar gestel word, kan 'n Kontrakterende Regering toelaat dat 'n groter getal persone in sy skepe vervoer word as wat anders kragtens die huidige Konvensie toelaatbaar is.

(b) Sodanige vergunning ontneem ander Kontrakterende Regerings geen reg wat hulle ingevolge die huidige Konvensie besit om beheer uit te oefen oor sulke skepe wat hul hawens binnekom nie.

(c) Kennisgewing van sodanige vergunning, tesame met 'n uiteensetting van die omstandighede, moet deur die Kontrakterende Regering wat sodanige vergunning toestaan, aan die Organisasie gestuur word.

ARTIKEL VI

Vroeëre verdrae en konvensies

(a) Vir sover dit die Kontrakterende Regerings betref, word die Internasionale Konvensie vir die Beveiliging van Menselewens op See, wat op 17 Junie 1960 te

the present Convention full and complete effect, so as to ensure that, from the point of view of safety of life, a ship is fit for the service for which it is intended.

ARTICLE II

Application

The present Convention shall apply to ships entitled to fly the flag of States the Governments of which are Contracting Governments.

ARTICLE III

Laws, regulations

The Contracting Governments undertake to communicate to and deposit with the Secretary-General of the Inter-Governmental Maritime Consultative Organization (hereinafter referred to as "the Organization")—

(a) a list of non-governmental agencies which are authorized to act in their behalf in the administration of measures for safety of life at sea for circulation to the Contracting Governments for the information of their officers;

(b) the text of laws, decrees, orders and regulations which shall have been promulgated on the various matters within the scope of the present Convention;

(c) a sufficient number of specimens of their Certificates issued under the provisions of the present Convention for circulation to the Contracting Governments for the information of their officers.

ARTICLE IV

Cases of force majeure

(a) A ship, which is not subject to the provisions of the present Convention at the time of its departure on any voyage, shall not become subject to the provisions of the present Convention on account of any deviation from its intended voyage due to stress of weather or any other cause of *force majeure.*

(b) Persons who are on board a ship by reason of *force majeure* or in consequence of the obligation laid upon the master to carry shipwrecked or other persons shall not be taken into account for the purpose of ascertaining the application to a ship of any provisions of the present Convention.

ARTICLE V

Carriage of persons in emergency

(a) For the purpose of evacuating persons in order to avoid a threat to the security of their lives a Contracting Government may permit the carriage of a larger number of persons in its ships than is otherwise permissible under the present Convention.

(b) Such permission shall not deprive other Contracting Governments of any right of control under the present Convention over such ships which come within their ports.

(c) Notice of any such permission, together with a statement of the circumstances, shall be sent to the Secretary-General of the Organization by the Contracting Government granting such permission.

ARTICLE VI

Prior treaties and conventions

(a) As between the Contracting Governments, the present Convention replaces and abrogates the Inter-

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Londen onderteken is, deur die huidige Konvensie vervang en herroep.

(b) Alle ander verdrae, konvensies en reëlings betreffende die veiligheid van menselewens op see, of sake wat daarop betrekking het, wat tans van krag is tussen Regerings wat partye is by die huidige Konvensie, bly tydens hul geldigheidsduur ten volle van krag in die geval van—

(i) skepe waarop die huidige Konvensie nie van toepassing is nie;

(ii) skepe waarop die huidige Konvensie van toepassing is, ten aansien van sake waarvoor daar in die Konvensie nie uitdruklik voorsiening gemaak is nie.

(c) Vir sover sulke verdrae, konvensies of reëlings in stryd is met die bepalings van die huidige Konvensie, gee die bepalings van die huidige Konvensie egter die deurslag.

(d) Alle sake waarvoor daar in die huidige Konvensie nie uitdruklik voorsiening gemaak is nie, bly onderworpe aan die wetgewing van die Kontrakterende Regerings.

ARTIKEL VII

Spesiale reëls by ooreenkoms opgestel

Wanneer daar ooreenkomstig die huidige Konvensie spesiale reëls by ooreenkoms tussen al of party van die Kontrakterende Regerings opgestel word, moet sodanige reëls aan die Organisasie gestuur word vir verspreiding onder al die Kontrakterende Regerings.

ARTIKEL VIII

Wysigings

(a) Die huidige Konvensie kan gewysig word deur enige van die prosedures soos uiteengesit in die volgende paragrawe:

(b) Wysigings ná oorweging binne die Organisasie:

(i) Enige voorgestelde wysiging deur 'n Kontrakterende Regering moet aan die Sekretaris-generaal van die Organisasie voorgelê word, wat dit dan minstens ses maande voor die oorweging daarvan aan al die lede van die Organisasie en Kontrakterende Regerings moet deurstuur.

(ii) Enige sodanige gesirkuleerde voorgestelde wysiging moet ter oorweging aan die Maritieme Veiligheidskomitee van die Organisasie voorgelê word.

(iii) Kontrakterende Regerings van lande is daarop geregtig om deel te neem aan die verrigtinge van die Maritieme Veiligheidskomitee by die oorweging en aanvaarding van wysigings, afgesien daarvan of hulle lede van die Organisasie is.

(iv) Wysigings moet aanvaar word deur 'n tweederdemeerderheid van die Kontrakterende Regerings wat teenwoordig is en stem in die Maritieme Veiligheidskomitee soos vergroot ingevolge subparagraaf (iii) van hierdie paragraaf (hierna genoem die vergrote Maritieme Veiligheidskomitee) op voorwaarde dat minstens een derde van die Kontrakterende Regerings by die stemming teenwoordig moet wees.

(v) Die Sekretaris-generaal moet wysigings wat ooreenkomstig subparagraaf (iv) van hierdie paragraaf aangeneem is, aan alle Kontrakterende Regerings deurstuur vir aanvaarding.

(vi) (1) 'n Wysiging van 'n artikel van die Konvensie of van Hoofstuk I van die Aanhangsel sal aanvaar geag te wees op die dag wanneer dit deur twee derdes van die Kontrakterende Regerings aanvaar is.

national Convention for the Safety of Life at Sea which was signed in London on 17 June 1960.

(b) All other treaties, conventions and arrangements relating to safety of life at sea, or matters appertaining thereto, at present in force between Governments parties to the present Convention shall continue to have full and complete effect during the terms thereof as regards—

(i) ships to which the present Convention does not apply;

(ii) ships to which the present Convention applies, in respect of matters for which it has not expressly provided.

(c) To the extent, however, that such treaties, conventions or arrangements conflict with the provisions of the present Convention, the provisions of the present Convention shall prevail.

(d) All matters which are not expressly provided for in the present Convention remain subject to the legislation of the Contracting Governments.

ARTICLE VII

Special rules drawn up by agreement

When in accordance with the present Convention special rules are drawn up by agreement between all or some of the Contracting Governments, such rules shall be communicated to the Secretary-General of the Organization for circulation to all Contracting Governments.

ARTICLE VIII

Amendments

(a) The present Convention may be amended by either of the procedures specified in the following paragraphs.

(b) Amendments after consideration within the Organization:

(i) Any amendment proposed by a Contracting Government shall be submitted to the Secretary-General of the Organization, who shall then circulate it to all Members of the Organization and all Contracting Governments at least six months prior to its consideration.

(ii) Any amendment proposed and circulated as above shall be referred to the Maritime Safety Committee of the Organization for consideration.

(iii) Contracting Governments of States, whether or not Members of the Organization, shall be entitled to participate in the proceedings of the Maritime Safety Committee for the consideration and adoption of amendments.

(iv) Amendments shall be adopted by a two-thirds majority of the Contracting Governments present and voting in the Maritime Safety Committee expanded as provided for in subparagraph (iii) of this paragraph (hereinafter referred to as "the expanded Maritime Safety Committee") on condition that at least one-third of the Contracting Governments shall be present at the time of voting.

(v) Amendments adopted in accordance with subparagraph (iv) of this paragraph shall be communicated by the Secretary-General of the Organization to all Contracting Governments for acceptance.

(vi) (1) An amendment to an Article of the Convention or to Chapter I of the Annex shall be deemed to have been accepted on the date on which it is accepted by two-thirds of the Contracting Governments.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(2) 'n Wysiging van die Aanhangsel, uitgesonderd Hoofstuk I, sal aanvaar geag te wees—

(aa) aan die einde van twee jaar vanaf die dag waarop dit vir aanvaarding aan die Kontrakterende Regerings voorgelê word; of

(bb) aan die einde van 'n ander tydperk, wat nie minder as 'n jaar moet wees nie, indien dit so bepaal word deur 'n tweederdemeerderheid van die Kontrakterende Regerings wat teenwoordig is en stem in die vergrote Maritieme Veiligheidskomitee.

Ewenwel, indien òf meer as een derde van die Kontrakterende Regerings, òf Kontrakterende Regerings wie se gekombineerde handelsvlote nie minder nie as 50 persent van die bruto tonnemaat van die wêreld se handelsvloot uitmaak, binne die bepaalde tydperk die Sekretaris-generaal van die Organisasie daarvan in kennis stel dat hulle die wysiging teëstaan, sal dit geag word nie aanvaar te wees nie.

(vii) (1) 'n Wysiging van 'n artikel van die Konvensie of van Hoofstuk I van die Aanhangsel word ses maande nadat dit as aanvaar geag word, van krag ten opsigte van dié Kontrakterende Regerings wat dit aanvaar het; en ses maande na datum van aanvaarding ten opsigte van elke Kontrakterende Regering wat dit later aanvaar.

(2) 'n Wysiging van die Aanhangsel, uitgesonderd Hoofstuk I, word ses maande nadat dit as aanvaar geag word, van krag ten opsigte van alle Kontrakterende Regerings, behalwe dié wat ingevolge subparagraaf (vi) (2) van hierdie paragraaf teen die wysiging beswaar aangeteken het en wat sodanige beswaar nie teruggetrek het nie. Enige Kontrakterende Regering kan egter voor die bepaalde datum van inwerkingtrede die Sekretaris-generaal van die Organisasie daarvan in kennis stel dat hy homself daarvan onthef om uitvoering aan sodanige wysiging te gee vir 'n tydperk van hoogstens een jaar vanaf die inwerkingtrede daarvan, of vir sodanige langer tydperk as wat deur 'n tweederdemeerderheid van die Kontrakterende Regerings bepaal kan word wat teenwoordig is en stem in die vergrote Maritieme Veiligheidskomitee ten tyde van die aanvaarding van die wysiging.

(c) Wysiging deur 'n Konferensie:

(i) Op versoek van 'n Kontrakterende Regering met die instemming van minstens een derde van die Kontrakterende Regerings moet die Organisasie 'n Konferensie van Kontrakterende Regerings saamroep om wysigings van die bestaande Konvensie te oorweeg.

(ii) Elke wysiging wat by sodanige Konferensie aanvaar word deur 'n tweederdemeerderheid van die Kontrakterende Regerings wat teenwoordig is en stem, moet deur die Sekretaris-generaal van die Organisasie vir aanvaarding aan alle Kontrakterende Regerings voorgelê word.

(iii) Tensy die Konferensie anders besluit, word die wysiging geag aanvaar te wees en word dit van krag ooreenkomstig die prosedures in subparagrawe (b) (vi) en (b) (vii) onderskeidelik van hierdie artikel; met dien verstande dat verwysings na die vergrote Maritieme Veiligheidskomitee gelees moet word asof hulle slaan op die Konferensie.

(d) (i) 'n Kontrakterende Regering wat 'n wysiging van die Bylae aanvaar het wat van krag geword het, is nie verplig om die voordeel van die huidige Konvensie ten opsigte van die sertifikate wat aan 'n skip uitgereik is wat daarop geregtig is om onder die vlag te vaar van 'n land of regering wat ingevolge die bepalings van subparagraaf (b) (vi) (2) van hierdie artikel

(2) An amendment to the Annex other than Chapter I shall be deemed to have been accepted—

(aa) at the end of two years from the date on which it is communicated to Contracting Governments for acceptance; or

(bb) at the end of a different period, which shall not be less than one year, if so determined at the time of its adoption by a two-thirds majority of the Contracting Governments present and voting in the expanded Maritime Safety Committee.

However, if within the specified period either more than one-third of Contracting Governments, or Contracting Governments the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, notify the Secretary-General of the Organization that they object to the amendment, it shall be deemed not to have been accepted.

(vii) (1) An amendment to an Article of the Convention or to Chapter I of the Annex shall enter into force with respect to those Contracting Governments which have acccepted it, six months after the date on which it is deemed to have been accepted, and with respect to each Contracting Government which accepts it after that date, six months after the date of that Contracting Government's acceptance.

(2) An amendment to the Annex other than Chapter I shall enter into force with respect to all Contracting Governments, except those which have objected to the amendment under subparagraph (vi) (2) of this paragraph and which have not withdrawn such objections, six months after the date on which it is deemed to have been accepted. However, before the date set for entry into force, any Contracting Government may give notice to the Secretary-General of the Organization that it exempts itself from giving effect to that amendment for a period not longer than one year from the date of its entry into force, or for such longer period as may be determined by a two-thirds majority of the Contracting Governments present and voting in the expanded Maritime Safety Committee at the time of the adoption of the amendment.

(c) Amendment by a Conference:

(i) Upon the request of a Contracting Government concurred in by at least one-third of the Contracting Governments, the Organization shall convene a Conference of Contracting Governments to consider amendments to the present Convention.

(ii) Every amendment adopted by such a Conference by a two-thirds majority of the Contracting Governments present and voting shall be communicated by the Secretary-General of the Organization to all Contracting Governments for acceptance.

(iii) Unless the Conference decides otherwise, the amendment shall be deemed to have been accepted and shall enter into force in accordance with the procedures specified in subparagraphs (b) (vi) and (b) (vii) respectively of this Article, provided that references in these paragraphs to the expanded Maritime Safety Committee shall be taken to mean references to the Conference.

(d) (i) A Contracting Government which has accepted an amendment to the Annex which has entered into force shall not be obliged to extend the benefit of the present Convention in respect of the certificates issued to a ship entitled to fly the flag of a State the Government of which, pursuant to the provisions of sub-

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

teen die wysiging beswaar gemaak het sonder om die beswaar terug te trek, oor te dra nie; maar dan slegs in die mate waarin sodanige sertifikate verband hou met sake wat deur die betrokke wysiging gedek word.

(ii) 'n Kontrakterende Regering wat 'n wysiging van die Aanhangsel aanvaar het wat van krag geword het, moet die voordeel van die huidige Konvensie oordra ten opsigte van die sertifikate wat aan 'n skip uitgereik is wat daarop geregtig is om onder die vlag te vaar van 'n land of regering wat ingevolge die bepalings van subparagraaf (b) (vii) (2) van hierdie Artikel die Sekretaris-generaal van die Organisasie daarvan in kennis gestel het dat hy homself daarvan onthef om uitvoering aan die wysiging te gee.

(e) Tensy dit uitdruklik anders bepaal word, is enige wysiging van die huidige Konvensie wat ooreenkomstig hierdie Artikel met betrekking tot die bou van 'n skip aangebring word, slegs van toepassing op skepe waarvan die kiele gelê is of wat op 'n dergelike stadium van konstruksie is op of na die datum waarop die wysiging van krag word.

(f) Enige verklaring van aanvaarding van of beswaar teen 'n wysiging of enige kennisgewing ingevolge subparagraaf (b) (vii) (2) van hierdie Artikel moet skriftelik voorgelê word aan die Sekretaris-generaal van die Organisasie, wat alle Kontrakterende Regerings van sodanige voorlegging asook die ontvangsdatum daarvan in kennis moet stel.

(g) Die Sekretaris-generaal van die Organisasie moet alle Kontrakterende Regerings inlig aangaande enige wysigings wat ingevolge hierdie Artikel van krag word, tesame met die datum van inwerkingtrede van elke sodanige wysiging.

ARTIKEL IX

Ondertekening en aanneming

(a) Die huidige Konvensie bly vanaf 1 November 1974 tot 1 Julie 1975 by die Organisasie se hoofkwartier beskikbaar vir ondertekening, en bly daarna beskikbaar vir aanneming. Lande kan tot die huidige Konvensie toetree deur—

(i) ondertekening sonder voorbehoud wat betref bekragtiging, aanneming of goedkeuring;

(ii) ondertekening onderworpe aan bekragtiging, aanneming of goedkeuring gevolg deur bekragtiging, aanneming of goedkeuring; of

(iii) aanneming.

(b) Bekragtiging, aanneming, goedkeuring of toetrede geskied deur die indiening van 'n dokument te dien effekte by die Sekretaris-generaal van die Organisasie.

(c) Die Sekretaris-generaal van die Organisasie moet die regerings van alle lande wat die huidige Konvensie onderteken het of daartoe toegetree het, in kennis stel van enige ondertekening of van die indiening van enige dokument van bekragtiging, aanneming, goedkeuring of toetrede en die datum van sodanige indiening.

ARTIKEL X

Inwerkingtreding

(a) Die huidige Konvensie tree in werking 12 maande vanaf die datum waarop nie minder nie as 25 lande wie se gekombineerde handelsvlote nie minder nie as 50 persent van die bruto tonnemaat van die wêreld se handelsvloot uitmaak, daartoe toegetree het ingevolge Artikel IX.

(b) Enige dokument van bekragtiging, aanneming, goedkeuring of toetrede wat ingedien word ná die datum waarop die huidige Konvensie van krag word, tree in werking drie maande na die indiening daarvan.

paragraph (b) (vi) (2) of this Article, has objected to the amendment and has not withdrawn such an objection, but only to the extent that such certificates relate to matters covered by the amendment in question.

(ii) A Contracting Government which has accepted and amendment to the Annex which has entered into force shall extend the benefit of the present Convention in respect of the certificates issued to a ship entitled to fly the flag of a State the Government of which, pursuant to the provisions of subparagraph (b) (vii) (2) of this Article, has notified the Secretary-General of the Organization that it exempts itself from giving effect to the amendment.

(e) Unless expressly provided otherwise, any amendment to the present Convention made under this Article, which relates to the structure of a ship, shall apply only to ships the keels of which are laid or which are at a similar stage of construction, on or after the date on which the amendment enters into force.

(f) Any declaration of acceptance of, or objection to, an amendment or any notice given under subparagraph (b) (vii) (2) of this Article shall be submitted in writing to the Secretary-General of the Organization, who shall inform all Contracting Governments of any such submission and the date of its receipt.

(g) The Secretary-General of the Organization shall inform all Contracting Governments of any amendments which enter into force under this Article, together with the date on which each such amendment enters into force.

ARTICLE IX

Signature, ratification, acceptance, approval and accession

(a) The present Convention shall remain open for signature at the Headquarters of the Organization from 1 November 1974 until 1 July 1975 and shall thereafter remain open for accession. States may become parties to the present Convention by—

(i) signature without reservation as to ratification, acceptance or approval; or

(ii) signature subject to ratification, acceptance or approval, followed by ratification, acceptance or approval; or

(iii) accession.

(b) Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument to that effect with the Secretary-General of the Organization.

(c) The Secretary-General of the Organization shall inform the Governments of all States which have signed the present Convention or acceded to it of any signature or of the deposit of any instrument of ratification, acceptance, approval or accession and the date of its deposit.

ARTICLE X

Entry into force

(a) The present Convention shall enter into force 12 months after the date on which not less than 25 States, the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant shipping, have become parties to it in accordance with Article IX.

(b) Any instrument of ratification, acceptance, approval or accession deposited after the date on which the present Convention enters into force shall take effect three months after the date of deposit.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(c) Na die datum waarop 'n wysiging tot die huidige Konvensie geag as aanvaar is onder artikel VIII, sal enige akte van bekragtiging, aanneming, goedkeuring of toetrede ingedien voldoen aan die Konvensie soos gewysig.

ARTIKEL XI

Opsegging

(a) Die huidige Konvensie kan deur 'n Kontrakterende Regering opgesê word te eniger tyd na verstryking van vyf jaar vanaf die datum waarop die Konvensie vir daardie Regering in werking getree het.

(b) Opsegging moet geskied deur die indiening van 'n opseggingsdokument by die Sekretaris-generaal van die Organisasie, wat al die ander Kontrakterende Regerings in kennis moet stel van enige opseggingsdokument wat ontvang is, van die ontvangsdatum daarvan asook van die datum waarop sodanige opsegging in werking tree.

(c) 'n Opsegging tree in werking een jaar, of sodanige langer tydperk as wat in die opseggingsdokument aangegee word, nadat dit deur die Sekretaris-generaal van die Organisasie ontvang is.

ARTIKEL XII

Bewaring en registrasie

(a) Die huidige Konvensie moet vir bewaring ingedien word by die Sekretaris-generaal van die Organisasie, wat gewaarmerkte afskrifte daarvan moet stuur aan die regerings van alle lande wat die huidige Konvensie onderteken het of daartoe toegetree het.

(b) Sodra die huidige Konvensie van krag word, moet die Sekretaris-generaal van die Organisasie die inhoud daarvan oordra aan die Sekretaris-generaal van die Verenigde Volke vir registrasie en publikasie ooreenkomstig Artikel 102 van die Handves van die Verenigde Volke.

ARTIKEL XIII

Tale

Die huidige Konvensie is vasgelê as 'n enkele kopie in Sjinees, Engels, Frans, Russies en Spaans, met elke weergawe gelykwaardig in gesaghebbendheid. Amptelike vertalings moet in Arabies, Duits en Italiaans voorberei word en saam met die oorspronklike bewaar word.

Ten bewyse waarvan die ondergetekendes, behoorlik vir die doel daartoe gemagtig deur hulle onderskeie regerings, die huidige Konvensie onderteken het.

Onderteken te Londen op hede die eerste dag van November Eenduisend Negehonderd Vier-en-sewentig.

L.W.—Name van ondertekenaars nie gedruk nie.

AANHANGSEL

HOOFSTUK 1

ALGEMENE BEPALINGS

DEEL A—TOEPASSING, DEFINISIES, ENS.

REGULASIE 1

Toepassing

(a) Tensy uitdruklik anders bepaal, is die huidige regulasies slegs van toepassing op skepe wat op internasionale reise gebruik word.

(b) In elke hoofstuk word die klasse skepe waarop daardie hoofstuk van toepassing is, nader omskryf en die mate van toepassing aangegee.

REGULASIE 2

Definisies

Vir die toepassing van die huidige Regulasies, tensy uitdruklik anders bepaal, beteken—

(a) "Regulasies" die Regulasies in die Aanhangsel van die huidige Konvensie;

(c) After the date on which an amendment to the present Convention is deemed to have been accepted under Article VIII, any instrument of ratification, acceptance, approval or accession deposited shall apply to the Convention as amended.

ARTICLE XI

Denunciation

(a) The present Convention may be denounced by any Contracting Government at any time after the expiry of five years from the date on which the Convention enters into force for that Government.

(b) Denunciation shall be effected by the deposit of an instrument of denunciation with the Secretary-General of the Organization who shall notify all the other Contracting Governments of any instrument of denunciation received and of the date of its receipt as well as the date on which such denunciation takes effect.

(c) A denunciation shall take effect one year, or such longer period as may be specified in the instrument of denunciation, after its receipt by the Secretary-General of the Organization.

ARTICLE XII

Deposit and registration

(a) The present Convention shall be deposited with the Secretary-General of the Organization who shall transmit certified true copies thereof to the Governments of all States which have signed the present Convention or acceded to it.

(b) As soon as the present Convention enters into force, the text shall be transmitted by the Secretary-General of the Organization to the Secretary-General of the United Nations for registration and publication, in accordance with Article 102 of the Charter of the United Nations.

ARTICLE XIII

Languages

The present Convention is established in a single copy in the Chinese, English, French, Russian and Spanish languages, each text being equally authentic. Official translations in the Arabic, German and Italian languages shall be prepared and deposited with the signed original.

In witness whereof the undersigned, being duly authorized by their respective Governments for that purpose, have signed the present Convention.

Done at London this First day of November One thousand Nine hundred and Seventy-four.

N.B.—Names of signatories not printed.

ANNEX

CHAPTER 1

GENERAL PROVISIONS

PART A—APPLICATION, DEFINITIONS, ETC.

REGULATION 1

Application

(a) Unless expressly provided otherwise, the present Regulations apply only to ships engaged on international voyages.

(b) The classes of ships to which each Chapter applies are more precisely defined, and the extent of the application is shown, in each Chapter.

REGULATION 2

Definitions

For the purpose of the present Regulations, unless expressly provided otherwise:

(a) "Regulations" means the Regulations contained in the Annex to the present Convention.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(b) "Administrasie" die regering van die land onder wie se vlag die skip geregtig is om te vaar;

(c) "goedgekeur" deur die Administrasie goedgekeur;

(d) "internasionale reis" 'n reis vanaf 'n land waarop die huidige Konvensie van toepassing is, na 'n hawe buite so 'n land, of omgekeerd;

(e) 'n passasier iedereen behalwe—

(i) die gesagvoerder en lede van die bemanning, of ander persone wat in enige hoedanigheid aan boord van 'n skip in verband met die besigheid van daardie skip in diens is of werksaam is; en

(ii) 'n kind onder een jaar.

(f) 'n passasierskip 'n skip wat meer as 12 passasiers vervoer;

(g) 'n vragskip 'n skip wat nie 'n passasierskip is nie;

(h) 'n tenkskip 'n vragskip gebou of ingerig om vragte ontvlambare* vloeistof los te vervoer;

(i) 'n vissersvaartuig 'n vaartuig wat gebruik word om vis, walvisse, robbe, walrusse of ander lewende oeste van die see te vang;

(j) 'n kernkragskip 'n skip wat met 'n kernkraginstallasie toegerus is;

(k) "nuwe skip" 'n skip waarvan die kiel gelê is of wat op 'n dergelike stadium van konstruksie is op of na die datum van inwerkingtreding van die huidige Konvensie;

(l) "bestaande skip" 'n skip wat nie 'n nuwe skip is nie;

(m) 'n myl 1 852 meter of 6 080 voet.

REGULASIE 3

Uitsonderings

(a) Tensy uitdruklik anders bepaal, is die huidige Regulasies nie op die volgende van toepassing nie:

(i) Oorlogskepe of troepskepe.

(ii) Vragskepe van minder as 500 ton bruto tonnemaat.

(iii) Skepe wat nie op meganiese wyse aangedryf word nie.

(iv) Houtskepe van primitiewe bou.

(v) Plesierjagte wat nie vir handeldryf gebruik word nie.

(vi) Vissersvaartuie.

(b) Behalwe soos uitdruklik in Hoofstuk V bepaal, is die voorskrifte van hierdie Regulasies nie van toepassing op skepe wat uitsluitlik op die Groot Mere van Noord-Amerika en die St. Lawrence-rivier sover oos as 'n reguit lyn getrek vanaf Cap des Rosiers tot by West Point, Anticosti-eiland en, aan die noordekant van Anticosti-eiland, die 63ste Meridiaan, vaar nie.

REGULASIE 4

Vrystellings

(a) 'n Skip wat nie normaalweg vir internasionale reise gebruik word nie maar onder buitengewone omstandighede 'n enkele internasionale reis moet onderneem, kan deur die Administrasie vrygestel word van enige van die vereistes van die huidige Regulasies, mits hy voldoen aan die veiligheidsvereistes wat na die mening van die Administrasie voldoende is vir die reis wat deur die skip onderneem moet word.

(b) Die Administrasie kan enige skip wat nuwe soorte eienskappe bevat, vrystel van enige van die bepalings van Hoofstukke II-1, II-2, III en IV van hierdie Regulasies wat navorsing ernstig kan strem ten opsigte van die ontwikkeling van sodanige eienskappe en hulle

* "Ontvlambaar" beteken dieselfde as "vlambaar".

(b) "Administration" means the Government of the State whose flag the ship is entitled to fly.

(c) "Approved" means approved by the Administration.

(d) "International voyage" means a voyage from a country to which the present Convention applies to a port outside such country, or conversely.

(e) A passenger is every person other than—

(i) the master and the members of the crew or other persons employed or engaged in any capacity on board a ship on the business of that ship; and

(ii) a child under one year of age.

(f) A passenger ship is a ship which carries more than 12 passengers.

(g) A cargo ship is any ship which is not a passenger ship.

(h) A tanker is a cargo ship constructed or adapted for the carriage in bulk of liquid cargoes of an inflammable* nature.

(i) A fishing vessel is a vessel used for catching fish, whales, seals, walrus or other living resources of the sea.

(j) A nuclear ship is a ship provided with a nuclear power plant.

(k) "New ship" means a ship the keel of which is laid or which is at a simliar stage of construction on or after the date of coming into force of the present Convention.

(l) "Existing ship" means a ship which is not a new ship.

(m) A mile is 1 852 metres or 6 080 feet.

REGULATION 3

Exceptions

(a) The present Regulations, unless expressly provided otherwise, do not apply to—

(i) ships of war and troopships;

(ii) cargo ships of less than 500 tons gross tonnage;

(iii) ships not propelled by mechanical means;

(iv) wooden ships of primitive build;

(v) pleasure yachts not engaged in trade;

(vi) fishing vessels.

(b) Except as expressly provided in Chapter V, nothing herein shall apply to ships solely navigating the Great Lakes of North America and the River St Lawrence as far east as a straight line drawn from Cap des Rosiers to West Point, Anticosti Island and, on the north side of Anticosti Island, the 63rd Meridian.

REGULATION 4

Exemptions

(a) A ship which is not normally engaged on international voyages but which, in exceptional circumstances, is required to undertake a single international voyage may be exempted by the Administration from any of the requirements of the present Regulations provided that it complies with safety requirements which are adequate in the opinion of the Administration for the voyage which is to be undertaken by the ship.

(b) The Administration may exempt any ship which embodies features of a novel kind from any of the provisions of Chapters II-1, II-2, III and IV of these Regulations the application of which might seriously impede research into the development of such features

* "Inflammable" has the same meaning as "flammable".

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

opneming in skepe wat internasionale reise onderneem. Enige sodanige skip moet egter voldoen aan veiligheidsvereistes wat na die mening van die Administrasie toereikend is vir die diens wat beoog word en sodanig is dat dit die algemene veiligheid van die skip verseker en aanneemlik is vir die regerings van die lande waar die skip aandoen. Die Administrasie wat enige sodanige vrystelling toelaat, moet die Organisasie in kennis stel van die besonderhede daarvan en die redes daarvoor, wat die Organisasie dan ter inligting aan die Kontrakterende Regerings moet deurstuur.

REGULASIE 5

Ekwivalente

(a) Waar die huidige Regulasies vereis dat 'n bepaalde of 'n bepaalde tipe uitrusting, materiaal, toestel of apparaat op 'n skip aangebring word of aan boord daarvan moet wees, of dat 'n bepaalde voorsiening gemaak moet word, kan die Administrasie toelaat dat 'n ander of 'n ander tipe uitrusting, materiaal, toestel of apparaat aangebring of aan boord is of dat 'n ander voorsiening in daardie skip gemaak word, mits hy op grond van proewe of andersins daarvan oortuig is dat sodanige uitrusting, materiaal, toestel of apparaat, of tipe daarvan, of voorsiening minstens net so doeltreffend is as dié wat deur die huidige Regulasies vereis word.

(b) 'n Administrasie wat aldus 'n uitrusting, materiaal, toestel of apparaat, of 'n tipe daarvan, of voorsiening toelaat ter vervanging van wat voorgeskryf is, moet besonderhede daarvan tesame met 'n verslag oor uitgevoerde proefnemings, aan die Organisasie meedeel en die Organisasie moet sodanige besonderhede onder ander Kontrakterende Regerings versprei vir die inligting van hul amptenare.

DEEL B—ONDERSOEKE EN SERTIFIKATE

REGULASIE 6

Inspeksie en ondersoek

Die inspeksie en ondersoek van skepe, vir sover dit die toepassing van die bepalings van die huidige Regulasies en die verlening van vrystellings daarvan betref, moet uitgevoer word deur amptenare van die land waarin die skip geregistreer is; met dien verstande dat die Regering van elke land die inspeksie en ondersoek kan toevertrou òf aan opnemers wat vir die doel benoem is òf aan organisasies wat deur hom erken word. In elke geval waarborg die betrokke Regering die volledigheid en doeltreffendheid van die inspeksie en ondersoek ten volle.

REGULASIE 7

Ondersoeke van passasierskepe

(a) 'n Passasierskip moet onderwerp word aan ondervermelde ondersoeke:

(i) 'n Ondersoek voordat die skip in diens gestel word.

(ii) 'n Periodieke ondersoek al om die 12 maande.

(iii) Addisionele ondersoeke na gelang van omstandighede.

(b) Bovermelde ondersoeke moet as volg uitgevoer word:

(i) Die ondersoek voordat die skip in diens gestel word, moet 'n volledige inspeksie van sy bou, masjinerie en uitrusting, met inbegrip van die buitekant van skeepsbodem en die binne- en buitekant van die ketels insluit. Hierdie ondersoek moet van so 'n aard wees dat daar verseker word dat die inrigtings, materiaal, en afmetings van die bouwerk, ketels en ander drukhouers en hul toebehore, hoof- en hulpmasjinerie,

and their incorporation in ships engaged on international voyages. Any such ship shall, however, comply with safety requirements which, in the opinion of that Administration, are adequate for the service for which it is intended and are such as to ensure the overall safety of the ship and which are acceptable to the Governments of the States to be visited by the ship. The Administration which allows any such exemption shall communicate to the Organization particulars of same and the reasons therefor which the Organization shall circulate to the Contracting Governments for their information.

REGULATION 5

Equivalents

(a) Where the present Regulations require that a particular fitting, material, appliance or apparatus, or type thereof, shall be fitted or carried in a ship, or that any particular provision shall be made, the Administration may allow any other fitting, material, appliance or apparatus, or type thereof, to be fitted or carried, or any other provision to be made in that ship, if it is satisfied by trial thereof or otherwise that such fitting, material, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by the present Regulations.

(b) Any Administration which so allows, in substitution, a fitting, material, appliance or apparatus, or type thereof, or provision, shall communicate to the Organization particulars thereof together with a report on any trials made and the Organization shall circulate such particulars to other Contracting Governments for the information of their officers.

PART B—SURVEYS AND CERTIFICATES

REGULATION 6

Inspection and survey

The inspection and survey of ships, so far as regards the enforcement of the provisions of the present Regulations and the granting of exemptions therefrom, shall be carried out by officers of the country in which the ship is registered, provided that the Government of each country may entrust the inspection and survey either to surveyors nominated for the purpose or to organizations recognized by it. In every case the Government concerned fully guarantees the completeness and efficiency of the inspection and survey.

REGULATION 7

Surveys of passenger ships

(a) A passenger ship shall be subjected to the surveys specified below:

(i) A survey before the ship is put in service.

(ii) A periodical survey once every 12 months.

(iii) Additional surveys, as occasion arises.

(b) The surveys referred to above shall be carried out as follows:

(i) The survey before the ship is put in service shall include a complete inspection of its structure, machinery and equipment, including the outside of the ship's bottom and the inside and outside of the boilers. This survey shall be such as to ensure that the arrangements, material, and scantlings of the structure, boilers and other pressure vessels and their appurtenances, main and auxiliary machinery, electrical installation, radio installation, radiotelegraph installations in motor lifeboats, portable radio apparatus for survival craft,

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

elektriese installasie, radio-installasie, radiotelegraafinstallasies in motorreddingsbote, draagbare radio-apparaat vir reddingsvaartuie, reddingstoestelle, brandbeskerming, brandopsporings- en blustoestelle, radar, eggopeilingsapparaat, tolkompas, loodslere, meganiese loodshysers en ander uitrusting ten volle voldoen aan die vereistes van die huidige Konvensie en van die wette, dekrete, orders en regulasies wat na aanleiding daarvan deur die Administrasie uitgevaardig is vir skepe in die diens waarvoor hulle bestem is. Die ondersoek moet ook sodanig wees dat daar verseker word dat die vakwerk ten opsigte van alle dele van die skip en sy uitrusting in alle opsigte bevredigend is, en dat die skip toegerus is met die ligte, seinvorms, middels vir die gee van geluidseine en noodseine soos vereis deur die bepalings van die huidige Konvensie en die geldende Internasionale Regulasies vir die Voorkoming van Botsings ter See.

(ii) Die periodieke ondersoek moet 'n inspeksie omvat van die bouwerk, ketels en ander drukhouers, masjinerie en uitrusting, met inbegrip van die buitekant van die skeepsbodem. Die ondersoek moet van so 'n aard wees dat daar verseker word dat die skip, wat betref die bouwerk, ketels en ander drukhouers en hul toebehore, hoof- en hulpmasjinerie, elektriese installasie, radio-installasie, radiotelegraafinstallasies in motorreddingsbote, draagbare radioapparaat vir reddingsvaartuie, reddingstoestelle, brandbeskerming, brandopsporings- en blustoestelle, radar, eggopeilingsapparaat, tolkompas, loodslere, meganiese loodshysers en ander uitrusting in 'n bevredigende toestand verkeer en geskik is vir die diens waarvoor hy bedoel is en dat hy voldoen aan die vereistes van die huidige Konvensie en van die wette, dekrete, orders en regulasies wat na aanleiding daarvan deur die Administrasie uitgevaardig is. Die skip se ligte, seinvorms en middels vir die gee van geluidseine en noodseine moet ook deur bogenoemde ondersoek gedek word ten einde te verseker dat hulle voldoen aan die vereistes van die huidige Konvensie en van die geldende Internasionale Regulasies vir die Voorkoming van Botsings ter See.

(iii) 'n Algemene of gedeeltelike ondersoek moet, na gelang van omstandighede, gehou word telkens nadat 'n ongeluk plaasgevind het of 'n gebrek ontdek is wat die veiligheid van die skip of die doeltreffendheid of volledigheid van sy reddingstoestelle of ander uitrusting raak of wanneer belangrike herstelwerk of vernuwings plaasvind. Die ondersoek moet van so 'n aard wees dat verseker word dat die nodige herstelwerk of vernuwings op doeltreffende wyse uitgevoer is, dat die materiaal en die wyse van uitvoering van die herstelwerk in alle opsigte bevredigend is en dat die skip in alle opsigte voldoen aan die bepalings van die huidige Konvensie en van die geldende Internasionale Regulasies vir die Voorkoming van Botsings ter See, en van die wette, dekrete, orders en regulasies wat na aanleiding daarvan deur die Administrasie uitgevaardig is.

(c) (i) Die wette, dekrete, orders en regulasies waarvan in paragraaf (b) van hierdie Regulasie melding gemaak word, moet in alle opsigte van so 'n aard wees dat daar verseker word dat die skip uit die oogpunt van die veiligheid van lewens geskik is vir die diens waarvoor hy bedoel is.

(ii) Hulle moet onder andere die vereistes voorskryf wat in ag geneem moet word by die eerste en daaropvolgende hidrouliese of ander aanvaarbare alternatiewe toetse waaraan die hoof- en hulpketels, verbindings, stoompype, hoogdrukvate, en brandstoftenks vir binnebrandmasjiene onderwerp moet word, met inbegrip van

life-saving appliances, fire protection, fire detecting and extinguishing appliances, radar, echo-sounding device, gyro-compass, pilot ladders, mechanical pilot hoists and other equipment, fully comply with the requirements of the present Convention, and of the laws, decrees, orders and regulations promulgated as a result thereof by the Administration for ships of the service for which it is intended. The survey shall also be such as to ensure that the workmanship of all parts of the ship and its equipment is in all respects satisfactory, and that the ship is provided with the lights, shapes, means of making sound signals and distress signals as required by the provisions of the present Convention and the International Regulations for Preventing Collisions at Sea in force.

(ii) The periodical survey shall include an inspection of the structure, boilers and other pressure vessels, machinery and equipment, including the outside of the ship's bottom. The survey shall be such as to ensure that the ship, as regards the structure, boilers and other pressure vessels and their appurtenances, main and auxiliary machinery, electrical installation, radio installation, radiotelegraph installations in motor lifeboats, portable radio apparatus for survival craft, life-saving appliances, fire protection, fire detecting and extinguishing appliances, radar, echo-sounding device, gyro-compass, pilot ladders, mechanical pilot hoists and other equipment, is in satisfactory condition and fit for the service for which it is intended, and that it complies with the requirements of the present Convention, and of the laws, decrees, orders and regulations promulgated as a result thereof by the Administration. The lights, shaped and means of making sound signals and the distress signals carried by the ship shall also be subject to the above-mentioned survey for the purpose of ensuring that they comply with the requirements of the present Convention and of the International Regulations for Preventing Collisions at Sea in force.

(iii) A survey either general or partial, according to the circumstances, shall be made every time an accident occurs or a defect is discovered which affects the safety of the ship or the efficiency or completeness of its life-saving appliances or other equipment, or whenever any important repairs or renewals are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs are in all respects satisfactory, and that the ship complies in all respects with the provisions of the present Convention and of the International Regulations for Preventing Collisions at Sea in force, and of the laws, decrees, orders and regulations promulgated as a result thereof by the Administration.

(c) (i) The laws, decrees, orders and regulations referred to in paragraph (b) of this Regulation shall be in all respects such as to ensure that, from the point of view of safety of life, the ship is fit for the service for which it is intended.

(ii) They shall among other things prescribe the requirements to be observed as to the initial and subsequent hydraulic or other acceptable alternative tests to which tthe main and auxiliary boilers, connections, steam pipes, high pressure receivers, and fuel tanks for internal combustion engines are to be submitted includ-

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

die toetsprosedures wat gevolg moet word en die tussenpose tussen twee opeenvolgende toetse.

REGULASIE 8

Ondersoeke van reddingstoestelle en ander uitrusting van vragskepe

Die reddingstoestelle, uitgesonderd 'n radiotelegraafinstallasie in 'n motorreddingsboot of 'n draagbare radio-apparaat vir 'n reddingsvaartuig, die eggopeilingsapparaat, die tolkompas en die brandblustoestelle van vragskepe waarop Hoofstukke II-1, II-2, III en V van toepassing is, moet onderwerp word aan die eerste en daaropvolgende ondersoeke soos in Regulasie 7 van hierdie Hoofstuk vir passasierskepe voorgeskryf, behalwe dat die tydperk van 12 maande in subparagraaf (a) (ii) van daardie regulasie deur die tydperk van 24 maande vervang word. Die brandbeheerplanne in nuwe skepe en die loodslere, meganiese loodshysers, ligte, seinvorms en middels vir die gee van geluidseine in nuwe en bestaande skepe moet deur die ondersoeke gedek word om te verseker dat hulle ten volle voldoen aan die vereistes van die huidige Konvensie en, waar van toepassing, van die geldende Internasionale Regulasies vir die Voorkoming van Botsings ter See.

REGULASIE 9

Ondersoeke van radio- en radarinstallasies van vragskepe

Die radio- en radarinstallasies van vragskepe waarop Hoofstukke IV en V van toepassing is, en enige radiotelegraafinstallasie in 'n motorreddingsboot of 'n draagbare radio-apparaat vir reddingsvaartuie wat ooreenkomstig die vereistes van Hoofstuk III aan boord is, moet onderwerp word aan die eerste en daaropvolgende ondersoeke soos in Regulasie 7 van hierdie Hoofstuk vir passasierskepe voorgeskryf.

REGULASIE 10

Ondersoek van die romp, masjinerie en uitrusting van vragskepe

Die romp, masjinerie en uitrusting van 'n vragskip (uitgesonderd items ten opsigte waarvan Vragskipveiligheidsuitrustingsertifikate, Vragskipveiligheidsradiotelegrafiesertifikate of Vragskipveiligheidsradiotelefoniesertifikate uitgereik word) moet ondersoek word by voltooiing en daarna op sodanige wyse en by sodanige tussenpose as wat na die mening van die Administrasie nodig is om te verseker dat hul toestand in alle opsigte bevredigend is. Die ondersoek moet van so 'n aard wees dat verseker word dat die inrigtings, materiaal, afmetings van die bouwerk, ketels en ander drukhouers en hul toebehore, hoof- en hulpmasjinerie, elektriese installasies en ander uitrusting in alle opsigte bevredigend is vir die diens waarvoor die skip bestem is.

REGULASIE 11

Handhawing van toestande na ondersoek

Nadat 'n ondersoek van die skip ingevolge Regulasies 7, 8, 9 of 10 van hierdie Hoofstuk voltooi is, mag geen verandering in die bou-inrigtings, masjinerie, uitrusting, ens., wat deur die ondersoek gedek is, sonder magtiging van die Administrasie aangebring word nie.

REGULASIE 12

Uitreiking van sertifikate

(a) (i) 'n Sertifikaat, genoem 'n Passasierskipveiligheidsertifikaat, word na inspeksie en ondersoek uitgereik ten opsigte van 'n passasierskip wat voldoen aan

ing the test procedures to be followed and the intervals between two consecutive tests.

REGULATION 8

Surveys of life-saving appliances and other equipment of cargo ships

The life-saving appliances, except a radiotelegraph installation in a motor lifeboat or a portable radio apparatus for survival craft, the echo-sounding device, the gyro-compass, and the fire-extinguishing appliances of cargo ships to which Chapters II-1, II-2, III and V apply shall be subject to initial and subsequent surveys as provided for passenger ships in Regulation 7 of this Chapter with the substitution of 24 months for 12 months in subparagraph (a) (ii) of that Regulation. The fire control plans in new ships and the pilot ladders, mechanical pilot hoists, lights, shapes and means of making sound signals carried by new and existing ships shall be included in the surveys for the purpose of ensuring that they comply fully with the requirements of the present Convention and, where applicable, the International Regulations for Preventing Collisions at Sea in force.

REGULATION 9

Surveys of radio and radar installations of cargo ships

The radio and radar installations of cargo ships to which Chapters IV and V apply and any radiotelegraph installation in a motor lifeboat or portable radio apparatus for survival craft which is carried in compliance with the requirements of Chapter III shall be subject to initial and subsequent surveys as provided for passenger ships in Regulation 7 of this Chapter.

REGULATION 10

Surveys of hull, machinery and equipment of cargo ships

The hull, machinery and equipment (other than items in respect of which Cargo Ship Safety Equipment Certificates, Cargo Ship Safety Radiotelegraphy Certificates or Cargo Ship Safety Radiotelephony Certificates are issued) of a cargo ship shall be surveyed on completion and thereafter in such manner and at such intervals as the Administration may consider necessary in order to ensure that their conditions is in all respects satisfactory. The survey shall be such as to ensure that the arrangements, material, and scantlings of the structure, boilers and other pressure vessels and their appurtenances, main and auxiliary machinery, electrical installations and other equipment are in all respects satisfactory for the service for which the ship is intended.

REGULATION 11

Maintenance of conditions after survey

After any survey of the ship under Regulations 7, 8, 9 or 10 of this Chapter has been completed, no change shall be made in the structural arrangements, machinery, equipment, etc. covered by the survey, without the sanction of the Administration.

REGULATION 12

Issue of certificates

(a) (i) A certificate called a Passenger Ship Safety Certificate shall be issued after inspection and survey to a passenger ship which complies with the require-

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

die vereistes van Hoofstukke II-1, II-2, III en IV en enige ander toepaslike vereistes van die huidige regulasies.

(ii) 'n Sertifikaat, genoem 'n Vragskipveiligheidskonstruksiesertifikaat, word na ondersoek uitgereik ten opsigte van 'n vragskip wat by 'n ondersoek vermeld in Regulasie 10 van hierdie Hoofstuk aan die vereistes vir vragskepe voldoen en wat aan die toepaslike vereistes van Hoofstukke II-I en II-2, uitgesonderd dié met betrekking tot brandblustoestelle en brandbeheerplanne, beantwoord.

(iii) 'n Sertifikaat, genoem 'n Vragskipveiligheidsuitrustingsertifikaat, word na inspeksie uitgereik ten opsigte van 'n vragskip wat aan die toepaslike vereistes van Hoofstukke II-1, II-2 en III en enige ander toepaslike vereistes van die huidige Regulasies voldoen.

(iv) 'n Sertifikaat, genoem 'n Vragskipveiligheidsradiotelegrafiesertifikaat, word na inspeksie uitgereik ten opsigte van 'n vragskip wat toegerus is met 'n radiotelegraafinstallasie wat aan die vereistes van Hoofstuk IV en enige ander toepaslike vereistes van die huidige Regulasies voldoen.

(v) 'n Sertifikaat, genoem 'n Vragskipveiligheidsradiotelefoniesertifikaat, word na inspeksie uitgereik ten opsigte van 'n vragskip wat toegerus is met 'n radiotelefooninstallasie wat aan die vereistes van Hoofstuk IV en enige ander toepaslike vereistes van die huidige Regulasies voldoen.

(vi) Wanneer 'n skip ingevolge en ooreenkomstig die bepalings van die huidige Regulasies vrygestel word, word daar benewens die sertifikate voorgeskryf by hierdie paragraaf, ook 'n sertifikaat wat 'n Vrystellingsertifikaat genoem word, aan die skip uitgereik.

(vii) Passasierskipveiligheidsertifikate, Vragskipveiligheidskonstruksiesertifikate, Vragskipveiligheidsuitrustingsertifikate, Vragskipveiligheidsradiotelegrafiesertifikate, Vragskipveiligheidsradiotelefoniesertifikate en Vrystellingsertifikate moet uitgereik word òf deur die Administrasie òf deur 'n persoon of organisasie wat deur die Administrasie behoorlik daartoe gemagtig is. In elke geval aanvaar daardie Administrasie volle verantwoordelikheid vir die sertifikaat.

(b) Nieteenstaande enige ander bepaling van die huidige Konvensie bly 'n sertifikaat wat uitgereik is ingevolge en ooreenkomstig die bepalings van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960, en wat geldig is by die huidige Konvensie se inwerkingtreding ten aansien van die Administrasie deur wie die sertifikaat uitgereik is, geldig totdat hy ingevolge die bepalings van Regulasie 14 van Hoofstuk 1 van daardie Konvensie verval.

(c) 'n Kontrakterende Regering moet nie sertifikate ingevolge en ooreenkomstig die bepalings van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960, 1948 of 1929, uitreik ná die datum waarop aanneming van die huidige Konvensie deur die Regering in werking tree nie.

REGULASIE 13

Uitreiking van sertifikaat deur ander Regering

'n Kontrakterende Regering kan op versoek van die Administrasie 'n skip laat ondersoek en, indien hy daarvan oortuig is dat daar aan die vereistes van die huidige Regulasies voldoen is, moet hy ooreenkomstig die huidige Regulasies sertifikate ten opsigte van die skip uitreik. 'n Sertfikaat wat aldus uitgereik is, moet 'n verklaring bevat ten effekte dat hy uitgereik is op versoek van die Regering van die land waarin die skip geregistreer is of sal word, en het dieselfde krag

ments of Chapters II-1, II-2, III and IV and any other relevant requirements of the present Regulations.

(ii) A certificate called a Cargo Ship Safety Construction Certificate shall be issued after survey to a cargo ship which satisfies the requirements for cargo ships on survey set out in Regulation 10 of this Chapter and complies with the applicable requirements of Chapters II-1 and II-2 other than those relating to fire-extinguishing appliances and fire control plans.

(iii) A certificate called a Cargo Ship Safety Equipment Certificate shall be issued after inspection to a cargo ship which complies with the relevant requirements of Chapters II-1, II-2 and III and any other relevant requirements of the present Regulations.

(iv) A certificate called a Cargo Ship Safety Radiotelegraphy Certificate shall be issued after inspection to a cargo ship, fitted with a radio-telegraph installation, which complies with the requirements of Chapter IV and any other relevant requirements of the present Regulations.

(v) A certificate called a Cargo Ship Safety Radiotelephony Certificate shall be issued after inspection to a cargo ship, fitted with a radiotelephone installation, which complies with the requirements of Chapter IV and any other relevant requirements of the present Regulations.

(vi) When an exemption is granted to a ship under and in accordance with the provisions of the present Regulations, a certificate called an Exemption Certificate shall be issued in addition to the certificates prescribed in this paragraph.

(vii) Passenger Ship Safety Certificates, Cargo Ship Safety Construction Certificates, Cargo Ship Safety Equipment Certificates, Cargo Ship Safety Radiotelegraphy Certificates, Cargo Ship Safety Radiotelephony Certificates and Exemption Certificates shall be issued either by the Administration or by any person or organization duly authorized by it. In every case, that Administration assumes full responsibility for the Certificate.

(b) Notwithstanding any other provision of the present Convention any certificate issued under, and in accordance with, the provisions of the International Convention for the Safety of Life at Sea, 1960, which is current when the present Convention comes into force in respect of the Administration by which the certificate is issued, shall remain valid until it expires under the terms of Regulation 14 of Chapter I of that Convention.

(c) A Contracting Government shall not issue certificates under, and in accordance with, the provisions of the International Convention for the Safety of Life at Sea, 1960, 1948 or 1929, after the date on which acceptance of the present Convention by the Government takes effect.

REGULATION 13

Issue of certificate by another Government

A Contracting Government may, at the request of the Administration, cause a ship to be surveyed and, if satisfied that the requirements of the present Regulations are complied with, shall issue certificates to the ship in accordance with the present Regulations. Any certificate so issued must contain a statement to the effect that it has been issued at the request of the Government of the country in which the ship is or

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

en ontvang dieselfde erkenning as 'n sertifikaat wat ingevolge Regulasie 12 van hierdie Hoofstuk uitgereik is.

REGULASIE 14

Geldigheidsduur van sertifikate

(a) Sertifikate, uitgesonderd Vragskipveiligheidskonstruksiesertifikate, Vragskipveiligheidsuitrustingsertifikate en Vrystellingsertifikate, word vir 'n tydperk van hoogstens 12 maande uitgereik. Vragskipveiligheidsuitrustingsertifikate word uitgereik vir 'n tydperk van hoogstens 24 maande. Vrystellingsertifikate is geldig vir hoogstens die tydperk waarvoor die sertifikate uitgereik word waarop hulle betrekking het.

(b) Indien 'n ondersoek plaasvind binne twee maande voor die einde van die tydperk waarvoor 'n Vragskipveiligheidsradiotelegrafiesertifikaat of 'n Vragskipveiligheidsradiotelefoniesertifikaat ten opsigte van vragskepe van 300 of meer ton bruto tonnemaat maar minder as 500 ton bruto tonnemaat oorspronklik uitgereik is, kan daardie sertifikaat teruggetrek word en 'n nuwe sertifikaat uigereik word en laasgenoemde verstryk dan 12 maande na die einde van genoemde tydperk.

(c) Indien 'n skip op die tydstip waarop sy sertifikaat verstryk, hom nie in 'n hawe bevind van die land waarin hy geregistreer is nie, kan die sertifikaat deur die Administrasie verleng word, maar so 'n verlenging word slegs toegestaan om die skip in staat te stel om sy reis na die land waarin hy geregistreer is of ondersoek moet word, te voltooi en dan slegs in gevalle waar dit gepas en redelik lyk om dit te doen.

(d) Geen sertifikaat word vir langer as vyf maande aldus verleng nie, en 'n skip ten opsigte waarvan so 'n verlenging toegestaan is, is nie by sy aankoms in die land waarin hy geregistreer is of by die hawe waar hy ondersoek moet word, op grond van sodanige verlenging geregtig om daardie hawe of land weer te verlaat sonder dat hy 'n nuwe sertifikaat verkry het nie.

(e) 'n Sertifikaat wat nie kragtens die voorgaande bepalings van hierdie Regulasie verleng is nie, kan deur die Administrasie verleng word vir 'n grasietydperk van hoogstens een maand vanaf die verstrykingsdatum wat daarop aangegee is.

REGULASIE 15

Vorm van sertifikate

(a) Alle sertifikate word opgestel in die amptelike taal of tale van die land wat hulle uitreik.

(b) Die vorm van die sertifikate moet dié wees van die modelle wat in die Byvoegsel van die huidige Regulasies verstrek word. Die rangskikking van die gedrukte deel van die modelsertifikate moet presies weergegee word in die sertifikate wat uigereik word of in gewaarmerkte afskrifte daarvan, en die besonderhede wat ingevul word in die sertifikate wat uitgereik word of in gewaarmerkte afskrifte daarvan, moet in romeinletters en Arabiese syfers wees.

REGULASIE 16

Die aanplak van sertifikate

Alle sertifikate of gewaarmerkte afskrifte daarvan wat ingevolge die huidige Regulasies uitgereik is, moet op 'n prominente en toeganklike plek op die skip aangeplak word.

will be registered, and it shall have the same force and receive the same recognition as a certificate issued under Regulation 12 of this Chapter.

REGULATION 14

Duration of certificates

(a) Certificates other than Cargo Ship Safety Construction Certificates, Cargo Ship Safety Equipment Certificates and Exemption Certificates shall be issued for a period of not more than 12 months. Cargo Ship Safety Equipment Certificates shall be issued for a period of not more than 24 months. Exemption Certificates shall not be valid for longer than the period of the certificates to which they refer.

(b) If a survey takes place within two months before the end of the period for which a Cargo Ship Safety Radiotelegraphy Certificate or a Cargo Ship Safety Radiotelephony Certificate issued in respect of cargo ships of 300 tons gross tonnage and upwards, but less than 500 tons gross tonnage, was originally issued, that certificate may be withdrawn, and a new certificate may be issued which shall expire 12 months after the end of the said period.

(c) If a ship at the time when its certificate expires is not in a port of the country in which it is registered, the certificate may be extended by the Administration, but such extension shall be granted only for the purpose of allowing the ship to complete its voyage to the country in which it is registered or is to be surveyed, and then only in cases where it appears proper and reasonable so to do.

(d) No certificate shall be thus extended for a longer period than five months, and a ship to which such extension is granted shall not, on its arrival in the country in which it is registered or the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port or country without having obtained a new certificate.

(e) A certificate which has not been extended under the foregoing provisions of this Regulation may be extended by the Administration for a period of grace of up to one month from the date of expiry stated on it.

REGULATION 15

Form of certificates

(a) All certificates shall be drawn up in the official language or languages of the country by which they are issued.

(b) The form of the certificates shall be that of the models given in the Appendix to the present Regulations. The arrangement of the printed part of the model certificates shall be exactly reproduced in the certificates issued, or in certified copies thereof, and the particulars inserted in the certificates issued, or in certified copies thereof, shall be in Roman characters and Arabic figures.

REGULATION 16

Posting up of certificates

All certificates or certified copies thereof issued under the present Regulations shall be posted up in a prominent and accessible place in the ship.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 17

Aanneming van sertifikate

Sertifikate wat uitgereik is op gesag van 'n Kontrakterende Regering, moet vir alle doeleindes wat deur die huidige Konvensie gedek word, deur die ander Kontrakterende Regerings aangeneem word. Hierdie sertifikate moet deur die ander Kontrakterende Regerings beskou word as van dieselfde krag as sertifikate wat deur hulle uitgereik word.

REGULASIE 18

Wysiging van sertifikate

(a) Indien 'n skip gedurende 'n bepaalde reis minder mense aan boord het as die totale getal wat in die Passasierskipveiligheidsertifikaat aangegee word en gevolglik volgens die bepalings van die huidige Regulasies die reg het om minder reddingsbote en ander reddingstoestelle aan boord te hê as wat in die sertifikaat aangegee word, kan 'n Aanhangsel deur die Regering, persoon of organisasie vermeld in Regulasie 12 of 13 uitgereik word.

(b) Hierdie Aanhangsel moet verklaar dat daar onder die omstandighede geen oortreding van die bepalings van die huidige Regulasies plaasgevind het nie. Hy moet aan die sertifikaat geheg word en vervang die sertifikaat vir sover dit die reddingstoestelle betref. Hy is slegs geldig vir die besondere reis waarvoor hy uitgereik is.

REGULASIE 19

Beheer

Elke skip met 'n sertifikaat uitgereik ingevolge Regulasie 12 of Regulasie 13, is in die hawens van die ander Kontrakterende Regerings onderworpe aan beheer deur die amptenare wat behoorlik deur sodanige Regerings gemagtig is vir sover sodanige beheer daarop gerig is om vas te stel dat daar 'n geldige sertifikaat aan boord is. So 'n sertifikaat moet aangeneem word tensy daar grondige redes bestaan om te glo dat die toestand van die skip of van sy uitrusting nie wesenlik ooreenstem met die besonderhede op hierdie sertifikaat nie. In daardie geval moet die amptenaar wat beheer uitoefen, stappe doen waardeur verseker word dat die skip nie vertrek voordat hy die see sonder gevaar vir die passasiers of die bemanning kan invaar nie. Indien hierdie beheer aanleiding gee tot ingryping van watter aard ook al, moet die amptenaar wat die beheer uitoefen, die Konsul van die land waarin die skip geregistreer is onverwyld skiftelik in kennis stel van al die omstandighede waarin die ingryping nodig geag is en moet die feite aan die Organisasie gerapporteer word.

REGULASIE 20

Voorregte

Daar kan nie ten gunste van 'n skip op die voorregte van die huidige Konvensie aanspraak gemaak word nie tensy gepaste geldige sertifikate ten opsigte van sodanige skip bestaan.

DEEL C—ONGEVALLE

REGULASIE 21

Ongevalle

(a) Elke Administrasie onderneem om, wanneer 'n ondersoek na sy mening kan bydra tot die vasstelling van die wysigings van die huidige Regulasies wat wenslik is, ondersoek in te stel na elke ongeval wat enige

REGULATION 17

Acceptance of certificates

Certificates issued under the authority of a Contracting Government shall be accepted by the other Contracting Governments for all purposes covered by the present Convention. They shall be regarded by the other Contracting Governments as having the same force as certificates issued by them.

REGULATION 18

Qualification of certificates

(a) If in the course of a particular voyage a ship has on board a number of persons less than the total number stated in the Passenger Ship Safety Certificate and is in consequence, in accordance with the provisions of the present Regulations, free to carry a smaller number of lifeboats and other life-saving appliances than that stated in the Certificate, an annex may be issued by the Government, person or organization referred to in Regulation 12 or 13 of this Chapter.

(b) This annex shall state that in the circumstances there is no infringement of the provisions of the present Regulations. It shall be annexed to the Certificate and shall be substituted for it in so far as the life-saving appliances are concerned. It shall be valid only for the particular voyage for which it is issued.

REGULATION 19

Control

Every ship holding a certificate issued under Regulation 12 or Regulation 13 of this Chapter is subject in the ports of the other Contracting Governments to control by officers duly authorized by such Governments in so far as this control is directed towards verifying that there is on board a valid certificate. Such certificate shall be accepted unless there are clear grounds for believing that the condition of the ship or of its equipment does not correspond substantially with the particulars of that certificate. In that case, the officer carrying out the control shall take such steps as will ensure that the ship shall not sail until it can proceed to sea without danger to the passengers or the crew. In the event of this control giving rise to intervention of any kind, the officer carrying out the control shall inform the Consul of the country in which the ship is registered in writing forthwith of all the circumstances in which intervention was deemed to be necessary, and the facts shall be reported to the Organization.

REGULATION 20

Privileges

The privileges of the present Convention may not be claimed in favour of any ship unless it holds appropriate valid certificates.

PART C—CASUALTIES

REGULATION 21

Casualties

(a) Each Administration undertakes to conduct an investigation of any casualty occurring to any of its ships subject to the provisions of the present convention when it judges that such an investigation may assist

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

van sy skepe oorkom waarop die bepalings van die huidige Konvensie van toepassing is.

(b) Elke Kontrakterende Regering onderneem om aan die Organisasie pertinente inligting omtrent die bevindings van sodanige ondersoeke te verstrek. Verslae of aanbevelings van die Organisasie wat op sodanige inligting berus, mag nie die identiteit of nasionaliteit van die betrokke skepe openbaar of op enige wyse 'n skip of persoon as verantwoordelike party aanwys of te kenne gee dat dié die verantwoordelike party is nie.

HOOFSTUK II-1

KONSTRUKSIE—INDELING EN STABILITEIT, MASJINERIE EN ELEKTRIESE INSTALLASIES

DEEL A—ALGEMEEN

REGULASIE 1

Toepassing

(a) (i) Tensy uitdruklik anders bepaal, is hierdie Hoofstuk van toepassing op nuwe skepe.

(ii) Bestaande passasiers- en vragskepe moet aan die volgende voldoen:

(1) In die geval van skepe waarvan die kiele gelê is of wat op 'n dergelike stadium van konstruksie is op of na die datum waarop die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960, van krag geword het, moet die Administrasie verseker dat voldoen word aan die vereistes wat ingevolge Hoofstuk II van daardie Konvensie toegepas is op nuwe skepe soos in daardie hoofstuk omskryf;

(2) in die geval van bestaande skepe waarvan die kiele gelê is of wat op 'n dergelike stadium van konstruksie was op of na die datum daarop die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1948, maar voor die datum waarop die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960, in werking getree het, moet die Administrasie verseker dat voldoen word aan die vereistes wat ingevolge Hoofstuk II van die Konvensie van 1948 toegepas is op nuwe skepe soos in daardie hoofstuk omskryf;

(3) in die geval van skepe waarvan die kiele gelê is of wat op 'n dergelike stadium van konstruksie was voor die datum waarop die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1948, van krag geword het, moet die Administrasie verseker dat daar voldoen word aan die vereistes wat ingevolge Hoofstuk II van daardie Konvensie toegepas is op bestaande skepe soos in daardie hoofstuk omskryf;

(4) wat betref die vereistes van Hoofstuk II-1 van die huidige Konvensie, wat nie vervat is in Hoofstuk II van die Konvensies van 1960 en 1948 nie, moet die Administrasie besluit watter van hierdie vereistes van toepassing gemaak moet word op bestaande skepe soos in die huidige Konvensie omskryf.

(iii) 'n Skip wat herstelwerk, verbouing en modifiëring met gepaardgaande uitrusting ondergaan, moet steeds ten minste voldoen aan die vereistes wat voorheen op die skip van toepassing was. In sodanige geval moet 'n skip oor die algemeen nie in 'n mindere mate aan die vereistes vir 'n nuwe skip voldoen as voorheen nie. Herstelwerk, verbouings en modifiërings van 'n groter aard, met die gepaardgaande uitrusting, behoort te voldoen aan die vereistes vir 'n nuwe skip vir sover die Administrasie dit redelik en prakties ag.

in determining what changes in the present Regulations might be desirable.

(b) Each Contracting Government undertakes to supply the Organization with pertinent information concerning the findings of such investigations. No reports or recommendations of the Organization based upon such information shall disclose the identity or nationality of the ships concerned or in any manner fix or imply responsibility upon any ship or person.

CHAPTER II-1

CONSTRUCTION—SUBDIVISION AND STABILITY, MACHINERY AND ELECTRICAL INSTALLATIONS

PART A—GENERAL

REGULATION 1

Application

(a) (i) Unless expressly provided otherwise, this Chapter applies to new ships.

(ii) Existing passenger ships and cargo ships shall comply with the following:

(1) For ships the keels of which were laid or which were at a similar stage of construction on or after the date of coming into force of the International Convention for the Safety of Life at Sea, 1960, the Administration shall ensure that the requirements which were applied under Chapter II of that Convention to new ships as defined in that Chapter are complied with;

(2) for ships the keels of which were laid or which were at a similar stage of construction on or after the date of coming into force of the International Convention for the Safety of Life at Sea, 1948, but before the date of coming into force of the International Convention for the Safety of Life at Sea, 1960, the Administration shall ensure that the requirements which were applied under Chapter II of the 1948 Convention to new ships as defined in that Chapter are complied with;

(3) for ships the keels of which were laid or which were at a similar stage of construction before the date of coming into force of the International Convention for the Safety of Life at Sea, 1948, the Administration shall ensure that the requirements which were applied under Chapter II of that Convention to existing ships as defined in that Chapter are complied with;

(4) as regards the requirements of Chapter II-1 of the present Convention which are not contained in Chapter II of the 1960 and 1948 Conventions, the Administration shall decide which of these requirements shall be applied to existing ships as defined in the present Convention.

(iii) A ship which undergoes repairs, alterations, modifications and outfitting related thereto shall continue to comply with at least the requirements previously applicable to the ship. An existing ship in such a case shall not, as a rule, comply to a lesser extent with the requirements for a new ship than it did before. Repairs, alterations and modifications of a major character and outfitting related thereto should meet the requirements for a new ship in so far as the Administration deems reasonable and practicable.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(b) Vir die doeleindes van hierdie Hoofstuk—

(i) is 'n nuwe passasierskip 'n passasierskip waarvan die kiel gelê is of wat op 'n dergelike stadium van konstruksie is op of na die datum waarop die huidige Konvensie in werking getree het, of 'n vragskip wat op of na daardie datum in 'n passasierskip omgeskep is en word alle ander passasierskepe beskryf as bestaande passasierskepe;

(ii) is 'n nuwe vragskip 'n vragskip waarvan die kiel gelê is of wat op 'n dergelike stadium van konstruksie is op of na die datum waarop die huidige Konvensie in werking getree het.

(c) Indien die Administrasie meen dat die beskutte aard en omstandighede van die reis sodanig is dat die toepassing van bepaalde vereistes van hierdie Hoofstuk daardeur onredelik of onnodig gemaak word, kan hy vrystelling van daardie vereistes verleen aan individuele skepe of klasse skepe wat aan sy land behoort en wat gedurende hul reis nie verder as 20 myl van die naaste land af vaar nie.

(d) In die geval van 'n passasierskip wat kragtens paragraaf (c) van Regulasie 27 van Hoofstuk III toegelaat word om meer persone aan boord te vervoer as wat die beskikbare reddingsbootruimte toelaat, moet hy voldoen aan die spesiale indelingstandaarde soos in paragraaf (e) van Regulasie 5 van hierdie Hoofstuk uiteengesit en aan die verbandhoudende spesiale bepalings betreffende deurdringbaarheid in paragraaf (d) van Regulasie 4 van hierdie Hoofstuk, tensy die Administrasie daarvan oortuig is dat dit met inagneming van die aard en omstandighede van die reis voldoende is dat die ander bepalings van die Regulasies van hierdie Hoofstuk en van Hoofstuk II-2 van die huidige Konvensie toegepas word.

(e) In die geval van passasierskepe wat in spesiale ondernemings vir die vervoer van groot getalle spesiale passasiers, soos byvoorbeeld pelgrimsondernemings, gebruik word, kan die Administrasie, indien hy daarvan oortuig is dat die vereistes van hierdie Hoofstuk onmoontlik nagekom kan word, sodanige skepe van daardie vereistes vrystel indien hulle aan sy land behoort, op voorwaarde dat hulle geheel en al voldoen aan die bepalings van—

(i) die reëls in die Bylae van die Special Trade Passenger Ships Agreement, 1971; en

(ii) die reëls in die Bylae van die Protocol on Space Requirements for Special Trade Passenger Ships, 1973, wanneer dit van krag word.

REGULASIE 2

Definisies

Vir die doeleindes van hierdie Hoofstuk, tensy uitdruklik anders bepaal—

(a) (i) is 'n indelingslaslyn 'n waterlyn wat gebruik word by die vasstelling van die indeling van die skip;

(ii) is die boonste indelingslaslyn die waterlyn wat ooreenkom met die grootste diepgang wat die toepaslike indelingsvereistes toelaat;

(b) is die lengte van die skip die lengte gemeet tussen die loodlyne aan die ente van die boonste indelingslaslyn;

(c) is die breedte van die skip die totale breedte gemeet vanaf die buitekant van een spant na die buitekant van sy oorkantse maat op of onder die boonste indelingslaslyn;

(b) For the purpose of this Chapter—

(i) a new passenger ship is a passenger ship the keel of which is laid or which is at a similar stage of construction on or after the date of coming into force of the present Convention, or a cargo ship which is converted to a passenger ship on or after that date, all other passenger ships being described as existing passenger ships;

(ii) a new cargo ship is a cargo ship the keel of which is laid or which is at a similar stage of construction after the date of coming into force of the present Convention.

(c) 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 belonging to its country which, in the course of their voyage, do not proceed more than 20 miles from the nearest land.

(d) In the case of a passenger ship which is permitted under paragraph (c) of Regulation 27 of Chapter III to carry a number of persons on board in excess of the lifeboat capacity provided, it shall comply with the special standards of subdivision set out in paragraph (e) of Regulation 5 of this Chapter, and the associated special provisions regarding permeability in paragraph (d) of Regulation 4 of this Chapter, unless the Administration is satisfied that, having regard to the nature and conditions of the voyage, compliance with the other provisions of the Regulations of this Chapter and Chapter II-2 of the present Convention is sufficient.

(e) 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, when they belong to its country, from those requirements, provided that they comply fully with the provisions of—

(i) the Rules annexed to the Special Trade Passenger Ships Agreement, 1971; and

(ii) the Rules annexed to the Protocol on Space Requirements for Special Trade Passenger Ships, 1973, when it enters into force.

REGULATION 2

Definitions

For the purpose of this Chapter, unless expressly provided otherwise—

(a) (i) a subdivision load line is a water-line used in determining the subdivision of the ship;

(ii) the deepest subdivision load line is the water-line which corresponds to the greatest draught permitted by the subdivision requirements which are applicable;

(b) the length of the ship is the length measured between perpendiculars taken at the extremities of the deepest subdivision load line;

(c) the breadth of the ship is the extreme width from outside of frame to outside of frame at or below the deepest subdivision load line;

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(d) is die diepgang die vertikale afstand vanaf die grondlyn midskeeps tot by die betrokke indelingslaslyn;

(e) is die beskotdek die boonste dek tot waar die waterdigte dwarsbeskotte opgetrek is;

(f) is die indompelingsgrenslyn 'n lyn minstens 76 millimeter (3 duim) onderkant die bovlak van die beskotdek aan die kant getrek;

(g) is die deurdringbaarheid van 'n ruimte die persentasie van daardie ruimte wat deur water ingeneem kan word.

Die volume van 'n ruimte wat hom tot bo die indompelingsgrenslyn uitstrek, moet slegs gemeet word tot op die hoogte van daardie lyn;

(h) moet die masjinerieruimte geag word te strek vanaf die grondlyn tot by die indompelingsgrenslyn en tussen die buitenste waterdigte hoofdwarsbeskotte wat die ruimtes begrens wat die hoof- en hulpaandryfmasjinerie, ketels wat in die behoeftes van aandrywing voorsien, en alle blywende koolbunkers bevat;

(In die geval van buitengewone reëlings, kan die Administrasie die grense van die masjinerieruimtes bepaal.);

(i) is passasiersruimtes die ruimtes wat voorsien is vir die huisvesting van en gebruik deur passasiers, met uitsondering van bagasie-, pak-, provisie- en poskamers;

Vir doeleindes van Regulasies 4 en 5 van hierdie Hoofstuk moet die ruimtes wat onder die indompelingsgrenslyn vir die huisvesting van en gebruik deur die bemanning voorsien is, as passasiersruimtes beskou word;

(j) moet volumes en oppervlaktes in alle gevalle tot buitekant die spante gemeet word.

DEEL B—INDELING EN STABILITEIT*

(Deel B is slegs van toepassing op passasierskepe, maar Regulasie 19 is ook op vragskepe van toepassing.)

REGULASIE 3

Vulbare lengte

(a) Die vulbare lengte op enige punt van die lengte van 'n skip word bepaal volgens 'n metode van berekening waarby die vorm, diepgang en ander kenmerke van die betrokke skip in aanmerking geneem word.

(b) In 'n skip met 'n deurlopende beskotdek, is die vulbare lengte op 'n bepaalde punt die maksimum gedeelte van die skeepslengte wat die bedoelde punt as middelpunt het, wat onder die bepaalde veronderstellings in Regulasie 4 van hierdie Hoofstuk vervat, gevul kan word sonder dat die skip dieper as tot by die indompelingsgrenslyn insink.

(c) (i) In die geval van 'n skip wat nie 'n deurlopende beskotdek het nie, kan die vulbare lengte op enige punt bepaal word tot 'n veronderstelde deurlopende indompelingsgrenslyn wat op geen punt minder as 76 millimeter (3 duim) laer is as die bodeel van die dek (aan die kant) tot waar die betrokke beskotte en die huid waterdig opgetrek word nie.

(ii) Wanneer 'n deel van 'n veronderstelde indompelingsgrenslyn aansienlik laer geleë is as die dek tot waar die beskotte reik, kan die Administrasie 'n beperkte verslapping toelaat ten opsigte van die water-

* In plek van die vereistes in hierdie deel, mag die Regulasies op subdivisie en stabiliteit van Passasierskepe as 'n ekwivalent tot Deel B van Hoofstuk II van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960 soos aanvaar deur die Organisasie by Resolusie A.265 (VIII), waar toepaslik, in hulle geheel gebruik word.

(d) the draught is the vertical distance from the moulded base line amidships to the subdivision load line in question;

(e) the bulkhead deck is the uppermost deck up to which the transverse watertight bulkheads are carried;

(f) the margin line is a line drawn at least 76 millimetres (3 inches) below the upper surface of the bulkhead deck at side;

(g) the permeability of a space is the percentage of that space which can be occupied by water;

The volume of a space which extends above the margin line shall be measured only to the height of that line;

(h) the machinery space is to be taken as extending from the moulded base line to the margin line and between the extreme main transverse watertight bulkheads bounding the spaces containing the main and auxiliary propelling machinery, boilers serving the needs of propulsion, and all permanent coal bunkers;

in the case of unusual arrangements, the Administration may define the limits of the machinery spaces;

(i) passenger spaces are those which are provided for the accommodation and use of passengers, excluding baggage, store, provision and mail rooms;

For the purposes of Regulations 4 and 5 of this Chapter, spaces provided below the margin line for the accommodation and use of the crew shall be regarded as passenger spaces;

(j) in all cases volumes and areas shall be calculated to moulded lines.

PART B—SUBDIVISION AND STABILITY*

(Part B applies to passenger ships only, except that Regulation 19 also applies to cargo ships.)

REGULATION 3

Floodable length

(a) The floodable length at any point of the length of a ship shall be determined by a method of calculation which takes into consideration the form, draught and other characteristics of the ship in question.

(b) In a ship with a continuous bulkhead deck, the floodable length at a given point is the maximum portion of the length of the ship, having its centre at the point in question, which can be flooded under the definite assumptions set forth in Regulation 4 of this Chapter without the ship being submerged beyond the margin line.

(c) (i) In the the case of a ship not having a continuous bulkhead deck, the floodable length at any point may be determined to an assumed continuous margin line which at no point is less than 76 millimetres (3 inches) below the top of the deck (at side) to which the bulkheads concerned and the shell are carried watertight.

(ii) Where a portion of an assumed margin line is appreciably below the deck to which bulkheads are carried, the Administration may permit a limited

* Instead of the requirements in this Part, the Regulations on Subdivision and Stability of Passenger Ships as an Equivalent to Part B of Chapter II of the International Convention for the Safety of Life at Sea, 1960, adopted by the Organization by Resolution A.265 (VIII), may be used, if applied, in their entirety.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

digtheid van daardie gedeeltes van die beskotte wat bo die indompelingsgrenslyn en onmiddellik onder die hoër dek geleë is.

REGULASIE 4

Deurdringbaarheid

(a) Die bepaalde veronderstellings vermeld in Regulasie 3 van hierdie Hoofstuk het betrekking op die deurdringbaarheid van die ruimtes onder die indompelingsgrenslyn.

By die bepaling van die vulbare lengte moet 'n uniforme gemiddelde deurdringbaarheid oor die hele lengte van elk van die volgende gedeeltes van die skip onderkant die indompelingsgrenslyn gebruik word:

(i) Die masjinerieruimte soos omskryf in Regulasie 2 van hierdie Hoofstuk;

(ii) die gedeelte wat voor die masjinerieruimte geleë is; en

(iii) die gedeelte wat agter die masjinerieruimte geleë is.

(b) (i) Die uniforme gemiddelde deurdringbaarheid oor die hele masjinerieruimte moet volgens die onderstaande formule bepaal word:

$$85+10\left(\frac{a-c}{v}\right)$$

waar—

a=die volume van die passasiersruimtes, soos omskryf in Regulasie 2 van hierdie Hoofstuk en geleë onderkant die indompelingsgrenslyn binne die grense van die masjinerieruimte.

c=die volume van die tussendekruimtes onderkant die indompelingsgrenslyn binne die grense van die masjinerieruimte wat toegewys is vir vrag, steenkool of voorrade.

v=die hele volume van die masjinerieruimte onderkant die indompelingsgrenslyn.

(ii) Waar tot tevredenheid van die Administrasie getoon word dat die gemiddelde deurdringbaarheid soos deur uitvoerige berekening bepaal, kleiner is as die wat deur die formule aangegee word, kan die uitvoerige berekende waarde gebruik word. Vir die doel van so 'n berekening moet die deurdringbaarheid van passasiersruimtes, soos omskryf in Regulasie 2 van hierdie Hoofstuk, gestel word op 95, dié van alle vrag-, steenkool- en voorraadruimtes op 60, en dié van dubbelboom-, oliebrandstof- en ander tenks op sodanige waardes as wat in elke geval goedgekeur mag word.

(c) Behoudens die bepalings van paragraaf (d) van hierdie Regulasie moet die uniforme gemiddelde deurdringbaarheid oor die hele gedeelte van die skip voor (of agter) die masjinerieruimte volgens onderstaande formule bereken word:

$$63+35\frac{a}{v}$$

waar—

a=die volume van die passasiersruimtes soos omskryf in Regulasie 2 van hierdie Hoofstuk, en geleë onderkant die indompelingsgrenslyn voor (of agter) die masjinerieruimte; en

v=die hele volume van die gedeelte van die skip onderkant die indompelingsgrenslyn voor (of agter) die masjinerieruimte.

(d) In die geval van 'n skip wat ingevolge paragraaf (c) van Regulasie 27 van Hoofstuk III toegelaat word om meer persone aan boord te vervoer as wat die

relaxation in the watertightness of those portions of the bulkheads which are above the margin line and immediately under the higher deck.

REGULATION 4

Permeability

(a) The definite assumptions referred to in Regulation 3 of this Chapter relate to the permeabilities of the spaces below the margin line.

In determining the floodable length, a uniform average permeability shall be used throughout the whole length of each of the following portions of the ship below the margin line:

(i) The machinery space as defined in Regulation 2 of this Chapter;

(ii) the portion forward of the machinery space; and

(iii) the portion abaft the machinery space.

(b) (i) The uniform average permeability throughout the machinery space shall be determined from the formula:

$$85+10\left(\frac{a-c}{v}\right)$$

where—

a=volume of the passenger spaces, as defined in Regulation 2 of this Chapter, which are situated below the margin line within the limits of the machinery space;

c=volume of between deck spaces below the margin line within the limits of the machinery space which are appropriated to cargo, coal or stores;

v=whole volume of the machinery space below the margin line.

(ii) Where it is shown to the satisfaction of the Administration that the average permeability as determined by detailed calculation is less than that given by the formula, the detailed calculated value may be used. For the purpose of such calculation, the permeabilities of passenger spaces, as defined in Regulation 2 of this Chapter, shall be taken as 95, that of all cargo, coal and store spaces as 60, and that of double bottom, oil fuel and other tanks at such values as may be approved in each case.

(c) Except as provided in paragraph (d) of this Regulation, the uniform average permeability throughout the portion of the ship before (or abaft) the machinery space shall be determined from the formula:

$$63+35\frac{a}{v}$$

where—

a=volume of the passenger spaces, as defined in Regulation 2 of this Chapter, which are situated below the margin line, before (or abaft) the machinery space, and

v=whole volume of the portion of the ship below the margin line before (or abaft) the mach.nery space.

(d) In the case of a ship which is permitted under paragraph (c) of Regulation 27 of Chapter III to carry a number of persons on board in excess of the

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

beskikbare reddingsbootruimte toelaat, en wat ingevolge paragraaf (d) van Regulasie 1 van hierdie Hoofstuk aan spesiale bepalings moet voldoen, moet die uniforme gemiddelde deurdringbaarheid oor die hele gedeelte van die skip voor (of agter) die masjinerieruimte volgens onderstaande formule bereken word:

$$95-35\frac{b}{v}$$

waar—

b=die volume van die ruimte onderkant die indompelingsgrenslyn en bo die boonste vlak van vloere, binneboom- of piektenks, na gelang van die geval, wat toegewys is vir en gebruik word as vragruimtes, steenkool- of oliebrandstofbunkers, voorraadkamers, bagasie- en poskamers, ketkingkaste en varswatertenks voor (of agter) die masjinerieruimte; en

v=die hele volume van die gedeelte van die skip onderkant die indompelingsgrenslyn voor (of agter) die masjinerieruimte.

In die geval van skepe wat in gebruik is op dienste waar die vragruime nie gewoonlik deur aansienlike hoeveelhede vrag in beslag geneem word nie, moet geen deel van die vragruimtes by die berekening van "b" ingesluit word nie.

(e) In die geval van buitengewone reëlings kan die Administrasie 'n uitvoerige berekening van die gemiddelde deurdringbaarheid van die gedeeltes voor of agter die masjinerieruimte toelaat of eis. Vir die doel van so 'n berekening moet die deurdringbaarheid van passasiersruimtes soos in Regulasie 2 van hierdie Hoofstuk omskryf, as 95 beskou word, dié van ruimtes bevattende masjinerie as 85, die van alle vrag-, steenkool- en voorraadruimtes as 60 en dié van dubbelboom-, oliebrandstof- en ander tenks as sodanige syfer as wat in elke geval goedgekeur is.

(f) Indien 'n tussendekafdeling tussen twee waterdigte dwarsbeskotte passasiers- of bemanningsruimte bevat, moet die hele afdeling, na aftrekking van enige ruimte wat volkome deur blywende staalbeskotte ingesluit en vir ander doeleindes toegewys is, as passasiersruimte beskou word. Indien die betrokke passasiers- of bemanningsruimte volkome binne blywende staalbeskotte ingesluit is, hoef slegs die aldus ingeslote ruimte as passasiersruimte beskou te word.

REGULASIE 5

Toelaatbare lengte van afdelings

(a) Skepe moet, met inagneming van die aard van die diens waarvoor hulle bedoel is, so doeltreffend moontlik ingedeel word. Die mate van indeling wissel met die lengte van die skip en met die diens, sodat die hoogste mate van indeling aangetref word by die langste skepe wat hoofsaaklik vir passasiersvervoer gebruik word.

(b) *Indelingsfaktor.*—Die maksimum toelaatbare lengte van 'n afdeling wat enige punt in die skeepslengte as middelpunt het, word verkry deur die vulbare lengte te vermenigvuldig met 'n toepaslike faktor, wat die indelingsfaktor genoem word. Die indelingsfaktor is afhanklik van die lengte van die skip en verander vir 'n gegewe lengte ooreenkomstig die aard van die diens waarvoor die skip bestem is. Dit moet op 'n reëlmatige wyse aanhoudend afneem—

(i) namate die skeepslengte toeneem; en

(ii) van 'n faktor A, wat van toepassing is op skepe wat hoofsaaklik gebruik word vir die vervoer

lifeboat capacity provided, and is required under paragraph (d) of Regulation 1 of this Chapter to comply with special provisions, the uniform average permeability throughout the portion of the ship before (or abaft) the machinery space shall be determined from the formula:

$$95-35\frac{b}{v}$$

where—

b=the volume of the spaces below the margin line and above the tops of floors, inner bottom, or peak tanks, as the case may be, which are appropriated to and used as cargo spaces, coal or oil fuel bunkers, store-rooms, baggage and mail rooms, chain lockers and fresh water tanks, before (or abaft) the machinery space; and

v=whole volume of the portion of the ship below the margin line before (or abaft) the machinery space.

In the case of ships engaged on services where the cargo holds are not generally occupied by any substantial quantities of cargo, no part of the cargo spaces is to be included in calculating "b".

(e) In the case of unusual arrangements the Administration may allow, or require, a detailed calculation of average permeability for the portions before or abaft the machinery space. For the purpose of such calculation, the permeability of passenger spaces as defined in Regulation 2 of this Chapter shall be taken as 95, that of spaces containing machinery as 85, that of all cargo, coal and store spaces as 60, and that of double bottom, oil fuel and other tanks at such value as may be approved in each case.

(f) Where a between deck compartment between two watertight transverse bulkheads contains any passenger or crew space, the whole of that compartment, less any space completely enclosed within permanent steel bulkheads and appropriated to other purposes, shall be regarded as passenger space. Where, however, the passenger or crew space in question is completely enclosed within permanent steel bulkheads, only the space so enclosed need be considered as passenger space.

REGULATION 5

Permissible length of compartments

(a) Ships shall be as efficiently subdivided as is possible having regard to the nature of the service for which they are intended. The degree of subdivision shall vary with the length of the ship and with the service, in such manner that the highest degree of subdivision corresponds with the ships of greatest length, primarily engaged in the carriage of passengers.

(b) *Factor of subdivision.*—The maximum permissible length of a compartment having its centre at any point in the ship's length is obtained from the floodable length by multiplying the latter by an appropriate factor called the factor of subdivision.

The factor of subdivision shall depend on the length of the ship, and for a given length shall vary according to the nature of the service for which the ship is intended. It shall decrease in a regular and continuous manner—

(i) as the length of the ship increases; and

(ii) from a factor A, applicable to ships primarily engaged in the carriage of cargo, to a factor B,

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

van vrag, tot 'n faktor B, wat van toepassing is op skepe wat hoofsaaklik gebruik word vir die vervoer van passasiers.

Die wisselings van die faktore A en B word uitgedruk deur die volgende formules (I) en (II) waar L die lengte is van die skip soos omskryf in Regulasie 2 van hierdie Hoofstuk:

L in meters

$$A = \frac{58,2}{L-60} + 0,18 \text{ (L=131 en groter)} \ldots\ldots\ldots \text{(I)}$$

L in voet

$$A = \frac{190}{L-198} + 0,18 \text{ (L=430 en groter)}$$

L in meters

$$B = \frac{30,3}{L-42} + 0,18 \text{ (L=79 en groter)} \ldots\ldots\ldots\ldots \text{(II)}$$

L in voet

$$B = \frac{100}{L-138} + 0,18 \text{ (L=260 en groter)}$$

(c) *Dienskriterium.*—Vir 'n skip van gegewe lengte moet die toepaslike indelingsfaktor bepaal word deur middel van die dienskriteriumsyfer (hierna kriteriumsyfer genoem), soos aangegee deur die volgende formules (III) en (IV), waar—

C_s=die kriteriumsyfer;

L =die lengte van die skip soos omskryf in Regulasie 2 van hierdie Hoofstuk;

M=die volume van die masjinerieruimte soos omskryf in Regulasie 2 van hierdie Hoofstuk, plus die volume van enige blywende oliebrandstofbunkers wat bo die binneboom en voor of agter die masjinerieruimte geleë is;

P =die hele volume van die passasiersruimtes onderkant die indompelingsgrenslyn, soos omskryf in Regulasie 2 van hierdie Hoofstuk;

V =die hele volume van die skip onder die indompelingsgrenslyn.

P_1=KN waar—

N=getal passasiers waarvoor die skip gesertifiseer moet word, en

K die volgende waardes het:

	Waarde van K
Lengte in meter en volumes in kubieke meter.....	0,056L
Lengte in voet en volumes in kubieke voet.....	0,6L

Wanneer die waarde van KN groter is as die som van P en die hele volume van die werklike passasiersruimtes bo die indompelingsgrenslyn, is die syfer wat as P_1 geneem moet word, daardie som of $\frac{2}{3}$ KN, water een ook al die grootste is.

Wanneer P_1 groter is as P—

$$C_s = 72\frac{M+2P_1}{V+P_1-P} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(III)}$$

en in ander gevalle—

$$C_s = 72\frac{M+2P}{V} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(IV)}$$

applicable to ships primarily engaged in the carriage of passengers.

The variations of the factors A and B shall be expressed by the following formulae (I) and (II) where L is the length of the ship as defined in Regulation 2 of this Chapter:

L in metres

$$A = \frac{58,2}{L-60} + 0,18 \text{ (L=131 and upwards)} \ldots\ldots\ldots \text{(I)}$$

L in feet

$$A = \frac{190}{L-198} + 0,18 \text{ (L=430 and upwards)}$$

L in metres

$$B = \frac{30,3}{L-42} + 0,18 \text{ (L=79 and upwards)} \ldots\ldots\ldots \text{(II)}$$

L in feet

$$B = \frac{100}{L-138} + 0,18 \text{ (L=260 and upwards)}$$

(c) *Criterion of service.*—For a ship of given length the appropriate factor of subdivision shall be determined by the Criterion of Service Numeral (hereinafter called the Criterion Numeral) as given by the following formulae (III) and (IV) where—

C_s =the Criterion Numeral;

L =length of the ship, as defined in Regulation 2 of this Chapter;

M =the volume of the machinery space, as defined in Regulation 2 of this Chapter; with the addition thereto of the volume of any permanent oil fuel bunkers which may be situated above the inner bottom and before or abaft the machinery space;

P =the whole volume of the passenger spaces below the margin line, as defined in Regulation 2 of this Chapter;

V =the whole volume of the ship below the margin line;

P_1 =KN where:

N=number of passengers for which the ship is to be certified, and

K has the following values:

	Value of K
Length in metres and volumes in cubic metres.....	0,056L
Length in feet and volumes in cubic feet.....	0,6L

Where the value of KN is greater than the sum of P and the whole volume of the actual passenger spaces above the margin line, the figure to be taken as P_1 is that sum or two-thirds KN, whichever is the greater.

When P_1 is greater than P—

$$C_s = 72\frac{M+2P_1}{V+P_1-P} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(III)}$$

and in other cases—

$$C_s = 72\frac{M+2P}{V} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(IV)}$$

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Vir skepe wat nie 'n deurlopende beskotdek het nie, moet die volumes geneem word tot by die werklike indompelingsgrenslyne wat vir die bepaling van die vulbare lengtes gebruik word.

(d) *Reëls vir indeling van ander skepe behalwe dié gedek deur paragraaf* (e) *van hierdie Regulasie.* (i) Die indeling, agter die voorpiek, van skepe van 131 meter (430 voet) en langer moet bepaal word, in die geval van 'n kriteriumsyfer van 23 of kleiner, deur die faktor A bereken volgens formule (I); in die geval van 'n kriteriumsyfer van 123 of groter, deur faktor B bereken volgens formule (II); en in die geval van 'n kriteriumsyfer tussen 23 en 123, deur die faktor F wat met gebruikmaking van die volgende formule deur middel van lineêre interpolasie tussen die faktore A en B verkry word:

$$F=A-\frac{(A-B)\,(C_s-23)}{100}\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(V)$$

Desnieteenstaande, wanneer die kriteriumsyfer gelyk is aan 45 of meer en die berekende indelingsfaktor soos aangegee in die formule (V) tegelykertyd 0,65 of kleiner maar groter as 0,50 is, moet die indeling agter die voorpiek deur die faktor 0,50 bepaal word.

Wanneer die faktor F kleiner is as 0,40 en daar tot tevredenheid van die Administrasie getoon word dat dit prakties onuitvoerbaar is om in 'n masjinerie-afdeling van die skip aan die faktor F te voldoen, mag die indeling van so 'n afdeling bepaal word deur 'n groter faktor, wat egter nie 0,40 te bowe mag gaan nie.

(ii) Die indeling, agter die voorpiek, van skepe korter as 131 meter (430 voet) maar nie korter as 79 meter (260 voet) nie en met 'n kriteriumsyfer gelyk aan S, waar—

$$S=\frac{3\,574-25L}{13}\text{(L in meter)}=\frac{9\,382-20L}{34}\text{(L in voet)}$$

moet bepaal word deur die faktor een; van dié met 'n kriteriumsyfer van 123 of groter, deur die faktor B bereken volgens formule (II); van dié met 'n kriteriumsyfer tussen S en 123, deur die faktor F wat met gebruikmaking van die volgende formule deur lineêre interpolasie tussen een en die faktor B bepaal word:

$$F=1-\frac{(1-B)\,(C_s-S)}{123-S}\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(VI)$$

(iii) Die indeling, agter die voorpiek, van skepe korter as 131 meter (430 voet) maar nie korter as 79 meter (260 voet) nie en met 'n kriteriumsyfer kleiner as S, en van alle skepe korter as 79 meter (260 voet), moet deur die faktor een bepaal word tensy daar tot tevredenheid van die Administrasie getoon word dat dit prakties onuitvoerbaar is om in enige deel van die skip aan hierdie faktor te voldoen, in welke geval die Administrasie sodanige verslapping kan toelaat as wat met inagneming van al die omstandighede geregverdig lyk.

(iv) Die bepalings van subparagraaf (iii) van hierdie paragraaf is ook van toepassing op skepe van enige lengte wat volgens hul sertifikate meer as 12 passasiers kan vervoer maar nie meer nie as—

$$\frac{L^2}{650}\text{(in meter)}=\frac{L^2}{7\,000}\text{(in voet)}$$ of 50, watter getal ook al die kleinste is.

(e) *Spesiale indelingstandaarde vir skepe wat ingevolge paragraaf* (c) *van Regulasie* 27 *van Hoofstuk* III *toegelaat word om meer persone aan boord te vervoer*

For ships not having a continuous bulkhead deck the volumes are to be taken up to the actual margin lines used in determining the floodable lengths.

(d) *Rules for subdivision of ships other than those covered by paragraph* (e) *of this Regulation.*—(1) The subdivision abaft the forepeak of ships 131 metres (430 feet) in length and upwards having a criterion numeral of 23 or less shall be governed by the factor A given by formula (I); of those having a criterion numeral of 123 or more by the factor B given by formula (II); and of those having a criterion numeral between 23 and 123 by the factor F obtained by linear interpolation between the factors A and B, using the formula:

$$F=A-\frac{(A-B)(C_s-23)}{100}\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(V)$$

Nevertheless, where the criterion numeral is equal to 45 or more and simultaneously the computed factor of subdivision as given by formula (V) is 0,65 or less, but more than 0,50, the subdivision abaft the forepeak shall be governed by the factor 0,50.

Where the factor F is less than 0,40 and it is shown to the satisfaction of the Administration to be impracticable to comply with the factor F in a machinery compartment of the ship, the subdivision of such compartment may be governed by an increased factor, which, however, shall not exceed 0,40.

(ii) The subdivision abaft the forepeak of ships less than 131 metres (430 feet) but not less than 79 metres (260 feet) in length having a criterion numeral equal to S, where—

$$S=\frac{3\,574-25L}{13}\text{(L in metres)}=\frac{9\,382-20L}{34}\text{(L in feet)}$$

shall be governed by the factor unity; of those having a criterion numeral of 123 or more by the factor B given by the formula (II); of those having a criterion numeral between S and 123 by the factor F obtained by linear interpolation between unity and the factor B using the formula:

$$F=1-\frac{(1-B)(C_s-S)}{123-S}\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(VI)$$

(iii) The subdivision abaft the forepeak of ships less than 131 metres (430 feet) but not less than 79 metres (260 feet) in length and having a criterion numeral less than S, and of all ships less than 79 metres (260 feet) in length shall be governed by the factor unity, unless, in either case, it is shown to the satisfaction of the Administration to be impracticable to comply with this factor in any part of the ship, in which case the Administration may allow such relaxation as may appear to be justified, having regard to all the circumstances.

(iv) The provisions of subparagraph (iii) of this paragraph shall apply also to ships of whatever length, which are to be certified to carry a number of passengers exceeding 12 but not exceeding—

$$\frac{L^2}{650}\text{(in metres)}=\frac{L^2}{7\,000}\text{(in feet)}$$, or 50, whichever is the less.

(e) *Special standards of subdivision for ships which are permitted under paragraph* (c) *of Regulation* 27 *of Chapter* III *to carry a number of persons on board*

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

as wat die beskikbare reddingsbootruimte toelaat, en wat ingevolge paragraaf (d) *van Regulasie* 1 *van hierdie Hoofstuk aan besondere bepalings moet voldoen.* (i) (1) In die geval van skepe wat hoofsaaklik gebruik word vir die vervoer van passasiers, moet die indeling agter die voorpiek bepaal word deur 'n faktor 0,50 of deur die faktor wat ooreenkomstig paragrawe (c) en (d) van hierdie Regulasie bereken is, indien dit minder is as 0,50.

(2) Waar die Administrasie in die geval van sulke skepe van korter as 91,5 meter (300 voet) daarvan oortuig is dat dit prakties onuitvoerbaar sou wees om in 'n afdeling aan so 'n faktor te voldoen, kan hy toelaat dat die lengte van daardie afdeling bepaal word deur 'n hoër faktor, mits die faktor wat gebruik word die laagste is wat onder die omstandighede prakties moontlik en redelik is.

(ii) Waar die noodsaaklikheid om aansienlike hoeveelhede vrag te vervoer, dit prakties onuitvoerbaar maak om te eis dat die indeling agter die voorpiek deur 'n faktor van hoogstens 0,50 bepaal word, moet die indelingstandaard, ongeag of die skip korter as 91,5 meter (300 voet) is of nie, ooreenkomstig onderstaande subparagrawe (1) tot (5) bepaal word, onderworpe aan die voorwaarde dat die Administrasie waar hy daarvan oortuig is dat dit in enige opsig onredelik sou wees om op strenge toepassing aan te dring, sodanige alternatiewe reëling van die waterdigte beskotte kan toelaat as wat op grond van verdienste geregverdig lyk en nie die algemene doeltreffendheid van die indeling sal verminder nie.

(1) Paragraaf (c) van hierdie Regulasie se bepalings betreffende die kriteriumsyfer is van toepassing, maar by die berekening van die waarde van P_1 vir passasiers vir wie daar slaapbanke is, moet K die waarde hê soos in paragraaf (c) van hierdie Regulasie bepaal of 3,55 kubieke meter (of 125 kubieke voet) beloop, watter ook al die grootste is, en vir passasiers sonder slaapbanke moet K 'n waarde hê van 3,55 kubieke meter (of 125 kubieke voet).

(2) Die faktor B in paragraaf (b) van hierdie Regulasie moet vervang word deur die faktor BB, wat deur middel van onderstaande formule bepaal word:

L in meters

$$BB=\frac{17,6}{L-33}+0,20 \text{ (L=55 en groter)}$$

L in voet

$$BB=\frac{57,6}{L-108}+0,20 \text{ (L=180 en groter)}$$

(3) Die indeling, agter die voorpiek, van skepe van 131 meter (430 voet) en langer moet bepaal word, in die geval van 'n kriteriumsyfer van 23 of kleiner, deur die faktor A bereken volgens formule (I) in paragraaf (b) van hierdie Regulasie; in die geval van 'n kriteriumsyfer van 123 of groter, deur die faktor BB bereken volgens die formule in subparagraaf (ii) (2) van hierdie paragraaf; en in die geval van 'n kriteriumsyfer van tussen 23 en 123, deur die faktor F wat met gebruikmaking van die volgende formule deur middel van lineêre interpolasie tussen die faktor A en BB verkry word:

$$F=A-\frac{(A-BB)(C_s-23)}{100}$$

in excess of the lifeboat capacity provided and are required under paragraph (d) *of Regulation* 1 *of this Chapter to comply with special provisions.* — (i) (1) In the case of ships primarily engaged in the carriage of passengers, the subdivision abaft the forepeak shall be governed by a factor of 0,50 or by the factor determined according to paragraphs (c) and (d) of this Regulation, if less than 0,50.

(2) In the case of such ships less than 91,5 metres (300 feet) in length, if the Administration is satisfied that compliance with such factor would be impracticable in a compartment, it may allow the length of that compartment to be governed by a higher factor provided the factor used is the lowest that is practicable and reasonable in the circumstances.

(ii) Where, in the case of any ship whether less than 91,5 metres (300 feet) or not, the necessity of carrying appreciable quantities of cargo makes it impracticable to require the subdivision abaft the forepeak to be governed by a factor not exceeding 0,50, the standard of subdivision to be applied shall be determined in accordance with the following subparagraphs (1) to (5), subject to the condition that where the Administration is satisfied that insistence on strict compliance in any respect would be unreasonable, it may allow such alternative arrangement of the water tight bulkheads as appears to be justified on merits and will not diminish the general effectiveness of the subdivision.

(1) The provisions of paragraph (c) of this Regulation relating to the criterion numeral shall apply with the exception that in calculating the value of P_1 for berthed passengers K is to have the value defined in paragraph (c) of this Regulation, or 3,55 cubic metres (125 cubic feet), whichever is the greater, and for unberthed passengers K is to have the value 3,55 cubic metres (125 cubic feet).

(2) The factor B in paragraph (b) of this Regulation shall be replaced by the factor BB determined by the following formula:

L in metres

$$BB=\frac{17,6}{L-33}+0,20 \text{ (L=55 and upwards)}$$

L in feet

$$BB=\frac{57,6}{L-108}+0,20 \text{ (L=180 and upwards)}$$

(3) The subdivision abaft the forepeak of ships 131 metres (430 feet) in length and upwards having a criterion numeral of 23 or less shall be governed by the factor A given by formula (I) in paragraph (b) of this Regulation; of those having a criterion numeral of 123 of more by the factor BB given by the formula in subparagraph (ii) (2) of this paragraph; and of those having a criterion numeral between 23 and 123 by the factor F obtained by linear interpolation between the factors A and BB, using the formula:

$$F=A-\frac{(A-BB)(C_s-23)}{100}$$

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Indien die aldus verkreë faktor F minder is as 0,50, moet egter as faktor gebruik word òf 0,50 òf die faktor bereken ooreenkomstig die bepalings van subparagraaf (d) (i) van hierdie Regulasie, watter een ook al die kleinste is.

(4) Die indeling, agter die voorpiek, van skepe korter as 131 meter (430 voet) maar nie korter as 55 meter (180 voet) nie en met 'n kriteriumsyfer gelyk aan S_1, waar—

$$S_1 = \frac{3\,712-25L}{19} \text{ (L in meters)}$$

$$S_1 = \frac{1\,950-4L}{10} \text{ (L in voet)}$$

moet bepaal word deur die faktor èèn; van dié met 'n kriteriumsyfer van 123 of groter, deur die faktor BB bereken volgens die formule in subparagraaf (ii) (2) van hierdie paragraaf; van dié met 'n kriteriumsyfer van tussen S_1 en 123, deur die faktor F, wat met gebruikmaking van die volgende formule deur lineêre interpolasie tussen èèn en die faktor BB bepaal word—

$$F = 1-\frac{(1-BB)(C_s-S_1)}{123-S_1}$$

Indien die aldus verkreë faktor in enige van laasgenoemde twee gevalle minder is as 0,50, kan die indeling egter bepaal word deur 'n faktor wat nie 0,50 te bowe gaan nie.

(5) Die indeling, agter die voorpiek, van skepe korter as 131 meter (430 voet) maar nie korter as 55 meter (180 voet) nie en met 'n kriteriumsyfer kleiner as S_1, en van alle skepe korter as 55 meter (180 voet) moet bepaal word deur die faktor èèn, tensy daar tot tevredenheid van die Administrasie getoon word dat in die geval van besondere afdelings voldoening aan hierdie faktor prakties onuitvoerbaar is, in welke geval die Administrasie sodanige verslapping ten aansien van daardie afdelings kan toelaat as wat met inagneming van al die omstandighede geregverdig lyk; met dien verstande dat die agterste afdeling en soveel as moontlik van die voorste afdelings (tussen die voorpiek en die agterste end van die masjinerieruimte) binne die vulbare lengte gehou word.

REGULASIE 6

Spesiale reëls betreffende indeling

(a) Wanneer die waterdigte beskotte in een of meer dele van 'n skip tot 'n hoër dek as in die res van die skip opgetrek word en daar verlang word om by die berekening van die vulbare lengte voordeel te trek uit hierdie hoër optrekking van die beskotte, kan afsonderlike indompelingsgrenslyne vir elke sodanige deel van die skip gebruik word; met dien verstande dat—

(i) die skeepsboorde oor die hele lengte van die skip uitstrek tot by die dek wat met die boonste indompelingsgrenslyn ooreenkom, en al die openings in die huidbeplating onderkant hierdie dek oor die hele lengte van die skip vir die toepassing van Regulasie 14 van hierdie Hoofstuk beskou word as onder 'n indompelingsgrenslyn geleë; en

(ii) die twee afdelings wat grens aan die "verspringing" in die beskotdek, albei hoogstens die toelaatbare lengte het wat met hul onderskeie indompelingsgrenslyne ooreenstem, en hul gesamentlike lengte daarbenewens nie twee maal die toelaatbare lengte gebaseer op die laer geleë indompelingsgrenslyn te bowe gaan nie.

except that if the factor F so obtained is less than 0,50 the factor to be used shall be either 0,50 or the factor calculated according to the provisions of subparagraph (d) (i) of this Regulation, whichever is the smaller.

(4) The subdivision abaft the forepeak of ships less than 131 metres (430 feet) but not less than 55 metres (180 feet) in length having a criterion numeral equal to S_1 where—

$$S_1 = \frac{3\,712-25L}{19} \text{(L in metres)}$$

$$S_1 = \frac{1\,950-4L}{10} \text{(L in feet)}$$

shall be governed by the factor unity; of those having a criterion numeral of 123 or more by the factor BB given by the formula in subparagraph (ii) (2) of this paragraph; of those having a criterion numeral between S_1 and 123 by the factor F obtained by linear interpolation between unity and the factor BB using the formula:

$$F=1-\frac{(1-BB)(C_s-S_1)}{123-S_1}$$

except that in either of the two latter cases if the factor so obtained is less than 0,50 the subdivision may be governed by a factor not exceeding 0,50.

(5) The subdivision abaft the forepeak of ships less than 131 metres (430 feet) but not less than 55 metres (180 feet) in length and having a criterion numeral less than S_1 and of all ships less than 55 metres (180 feet) in length shall be governed by the factor unity, unless it is shown to the satisfaction of the Administration to be impracticable to comply with this factor in particular compartments, in which event the Administration may allow such relaxations in respect of those compartments as appear to be justified, having regard to all the circumstances, provided that the aftermost compartment and as many as possible of the forward compartments (between the forepeak and the after end of the machinery space) shall be kept within the floodable length.

REGULATION 6

Special rules concerning subdivision

(a) Where in a portion or portions of a ship the watertight bulkheads are carried to a higher deck than in the remainder of the ship and it is desired to take advantage of this higher extension of the bulk heads in calculating the floodable length, separate margin lines may be used for each such portion of the ship provided that—

(i) the sides of the ship are extended throughout the ship's length to the deck corresponding to the upper margin line and all openings in the shell plating below this deck throughout the length of the ship are treated as being below a margin line, for the purposes of Regulation 14 of this Chapter; and

(ii) the two compartments adjacent to the "step" in the bulkhead deck are each within the permissible length corresponding to their respective margin lines, and, in addition, their combined length does not exceed twice the permissible length based on the lower margin line.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(b) (i) 'n Afdeling mag langer wees as die toelaatbare lengte soos bepaal volgens die reëls van Regulasie 5 van hierdie Hoofstuk, mits die gesamentlike lengte van elke paar aangrensende afdelings waarvan die betrokke afdeling 'n deel uitmaak, nie groter is nie as die vulbare lengte of twee maal die toelaatbare lengte, watter een ook al die kleinste is.

(ii) Indien een van die twee aangrensende afdelings binne die masjinerieruimte en die tweede buite die masjinerieruimte geleë is en die gemiddelde deurdringbaarheid van die deel van die skip waarin die tweede geleë is, verskil van dié van die masjinerieruimte, moet die gesamentlike lengte van die twee afdelings aangepas word by die gemiddelde deurdringbaarheid van die twee dele van die skip waarin die afdelings geleë is.

(iii) Wanneer die twee aangrensende afdelings verskillende indelingsfaktore het, moet die gesamentlike lengte van die twee afdelings na eweredigheid bepaal word.

(c) In skepe van 100 meter (330 voet) en langer moet een van die hoofdwarsbeskotte agter die voorpiek aangebring word op 'n afstand van die voorloodlyn wat nie groter is as die toelaatbare lengte nie.

(d) In 'n hoofdwarsbeskot mag 'n nis voorkom mits alle dele van die nis binnewaarts van vertikale oppervlaktes aan albei kante van die skip geleë is en wel op 'n afstand van die huidbeplating gelyk aan een vyfde van die breedte van die skip soos omskryf in Regulasie 2 van hierdie Hoofstuk, en reghoekig gemeet met die middellyn op die peil van die boonste indelingslaslyn.

Enige deel van 'n nis wat buite hierdie grense lê, moet ooreenkomstig paragraaf (e) van hierdie Regulasie behandel word as 'n deel van 'n beskot wat trapsgewyse verspring.

(e) 'n Hoofdwarsbeskot mag trapsgewyse verspring; met dien verstande dat hy voldoen aan een van onderstaande voorwaardes, naamlik dat—

(i) die gesamentlike lengte van die twee afdelings wat deur die betrokke beskot geskei word, òf 90 persent van die vulbare lengte òf twee maal die toelaatbare lengte nie oorskry nie, behalwe dat die gesamentlike lengte van die twee betrokke afdelings in skepe met 'n indelingsfaktor van groter as 0,9 nie die toelaatbare lengte mag oorskry nie;

(ii) voorsiening gemaak is vir addisionele indeling by wyse van 'n verspringing ter handhawing van dieselfde mate van veiligheid as dié wat deur middel van 'n vlak beskot verkry word;

(iii) die afdeling waaroor die verspringing strek, nie die toelaatbare lengte oorskry wat met 'n indompelingsgrenslyn 76 millimeter (3 duim) onderkant die verspringing ooreenkom nie.

(f) Indien 'n hoofdwarsbeskot 'n nis in het of trapsgewyse verspring, moet by bepaling van die indeling 'n gelykwaardige vlak beskot gebruik word.

(g) Indien die afstand tussen twee aangrensende hoofdwarsbeskotte of tussen hul gelykwaardige vlak beskotte, of die afstand tussen die dwarsvlakke wat loop deur die naaste trapsgewyse verspringende dele van die beskotte kleiner is as 3,05 meter (10 voet) plus 3 persent van die lengte van die skip, of 10,67 meter (35 voet), watter een ook al die kleinste is, moet net een van hierdie beskotte beskou word as deel van die indeling van die skip ooreenkomstig die bepalings van Regulasie 5 van hierdie Hoofstuk.

(h) Wanneer die hoof- dwarsskeepse waterdigte afdeling plaaslik onderverdeel is en daar tot tevredenheid van die Administrasie bewys kan word dat, by veronderstelde kantbeskadiging oor 'n lengte van 3,05

(b) (i) A compartment may exceed the permissible length determined by the rules of Regulation 5 of this Chapter provided the combined length of each pair of adjacent compartments to which the compartment in question is common does not exceed either the floodable length or twice the permissible length, whichever is the less.

(ii) If one of the two adjacent compartments is situated inside the machinery space, and the second is situated outside the machinery space, and the average permeability of the portion of the ship in which the second is situated differs from that of the machinery space, the combined length of the two compartments shall be adjusted to the mean average permeability of the two portions of the ship in which the compartments are situated.

(iii) Where the two adjacent compartments have different factors of subdivision, the combined length of the two compartments shall be determined proportionately.

(c) In ships 100 metres (330 feet) in length and upwards, one of the main transverse bulkheads abaft the forepeak shall be fitted at a distance from forward perpendicular which is not greater than the permissible length.

(d) A main transverse bulkhead may be recessed provided that all parts of the recess lie inboard of vertical surfaces on both sides of the ship, situated at a distance from the shell plating equal to one-fifth the breadth of the ship, as defined in Regulation 2 of this Chapter, and measured at right angles to the centre line at the level of the deepest subdivision load line.

Any part of a recess which lies outside these limits shall be dealt with as a step in accordance with paragraph (e) of this Regulation.

(e) A main transverse bulkhead may be stepped provided that it meets one of the following conditions:

(i) The combined length of the two compartments, separated by the bulkhead in question, does not exceed either 90 per cent of the floodable length or twice the permissible length, except that in ships having a factor of subdivision greater than 0,9, the combined length of the two compartments in question shall not exceed the permissible length;

(ii) additional subdivision is provided in way of the step to maintain the same measure of safety as that secured by a plane bulkhead;

(iii) the compartment over which the step extends does not exceed the permissible length corresponding to a margin line taken 76 millimetres (3 inches) below the step.

(f) Where a main transverse bulkhead is recessed or stepped, an equivalent plane bulkhead shall be used in determining the subdivision.

(g) If the distance between two adjacent main transverse bulkheads, or their equivalent plane bulkheads, or the distance between the transverse planes passing through the nearest stepped portions of the bulkheads, is less than 3,05 metres (10 feet) plus 3 per cent of the length of the ship, or 10,67 metres (35 feet) whichever is the less, only one of these bulkheads shall be regarded as forming part of the subdivision of the ship in accordance with the provisions of Regulation 5 of this Chapter.

(h) Where a main transverse watertight compartment contains local subdivision and it can be shown to the satisfaction of the Administration that, after any

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

meter (10 voet) plus 3 persent van die lengte van die skip, of 10,67 meter (35 voet), watter een ook al die kleinste is, die hele volume van die hoofafdeling nie sal volloop nie, kan daar na verhouding 'n vergroting van die toelaatbare lengte wat anders vir so 'n afdeling vereis word, toegestaan word. In so 'n geval mag die volume van die effektiewe dryfvermoë wat aan die onbeskadigde kant veronderstel word, nie groter wees as dié wat aan die beskadigde kant veronderstel word nie.

(i) Wanneer die vereiste indelingsfaktor 0,50 of kleiner is, mag die gesamentlike lengte van enige twee aangrensende afdelings nie die vulbare lengte oorskry nie.

REGULASIE 7

Stabiliteit van skepe in beskadigde toestand

(a) Die stabiliteit in die onbeskadigde toestand moet in alle diensomstandighede voldoende wees om die skip bestand te maak teen die finale stadium van oorstroming van enige hoofafdeling wat binne die vulbare lengte vereis word.

Wanneer twee aangrensende hoofafdelings geskei word deur 'n beskot met 'n trapsgewyse verspringing ingevolge die voorwaardes van subparagraaf (e) (i) van Regulasie 6 van hierdie Hoofstuk, moet die stabiliteit in die onbeskadigde toestand voldoende wees om die oorstroming van daardie twee aangrensende hoofafdelings te kan weerstaan.

Wanneer die vereiste indelingsfaktor 0,50 of kleiner maar groter as 0,33 is, moet die stabiliteit in die onbeskadigde toestand voldoende wees om die oorstroming van enige twee aangrensende hoofafdelings te kan weerstaan.

Wanneer die vereiste indelingsfaktor 0,33 of kleiner is, moet die stabiliteit in die onbeskadigde toestand voldoende wees om die oorstroming van enige drie aangrensende hoofafdelings te kan weerstaan.

(b) (i) Die vereistes van paragraaf (a) van hierdie Regulasie moet bepaal word deur middel van berekenings wat in ooreenstemming is met paragrawe (c), (d) en (f) van hierdie Regulasie en waarby die verhoudings en ontwerpkenmerke van die skip en die inrigting en vorm van die beskadigde afdelings in aanmerking geneem word. By hierdie berekenings moet daar veronderstel word dat die skip met betrekking tot stabiliteit in die slegste verwagte dienstoestand verkeer.

(ii) Wanneer die bedoeling is om dekke, binnehuide of langsskeepse beskotte van voldoende digtheid aan te bring ten einde die vloei van die water in 'n ernstige mate be beperk, moet die Administrasie die sekerheid hê dat daar by die berekenings voldoende aandag aan sulke beperkings geskenk word.

(iii) In gevalle waar die Administrasie van mening is dat die stabiliteitsomvang in die beskadigde toestand twyfelagtig is, kan hy eis dat ondersoek daarna ingestel word.

(c) Vir die berekening van stabiliteit in geval van beskadiging geld oor die algemeen die volgende volume- en oppervlaktedeurdringbaarhede:

Ruimtes	*Deurdringbaarheid*
Toegewys vir vrag, steenkool of voorrade	60
In beslag geneem deur akkommodasie	95
In beslag geneem deur masjinerie	85
Bedoel vir vloeistowwe	0 of 95*

* Watter syfer ook al die strengste vereistes tot gevolg het.

assumed side damage extending over a length of 3,05 metres (10 feet) plus 3 per cent of the length of the ship, or 10,67 metres (35 feet) whichever is the less, the whole volume of the main compartment will not be flooded, a proportionate allowance may be made in the permissible length otherwise required for such compartment. In such a case the volume of effective buoyancy assumed on the undamaged side shall not be greater than that assumed on the damaged side.

(i) Where the required factor of subdivision is 0,50 or less, the combined length of any two adjacent compartments shall not exceed the floodable length.

REGULATION 7

Stability of ships in damaged condition

(a) Sufficient intact stability shall be provided in all service conditions so as to enable the ship to withstand the final stage of flooding of any one main compartment which is required to be within the floodable length.

Where two adjacent main compartments are separated by a bulkhead which is stepped under the conditions of subparagraph (e) (i) of Regulation 6 of this Chapter the intact stability shall be adequate to withstand the flooding of those two adjacent main compartments.

Where the required factor of subdivision is 0,50 or less but more than 0,33 intact stability shall be adequate to withstand the flooding of any two adjacent main compartments.

Where the required factor of subdivision is 0,33 or less the intact stability shall be adequate to withstand the flooding of any three adjacent main compartments.

(b) (i) The requirements of paragraph (a) of this Regulation shall be determined by calculations which are in accordance with paragraphs (c), (d) and (f) of this Regulation and which take into consideration the proportions and design characteristics of the ship and the arrangement and configuration of the damaged compartments. In making these calculations the ship is to be assumed in the worst anticipated service condition as regards stability.

(ii) Where it is proposed to fit decks, inner skins or longitudinal bulkheads of sufficient tightness to seriously restrict the flow of water, the Administration shall be satisfied that proper consideration is given to such restrictions in the calculations.

(iii) In cases where the Administration considers the range of stability in the damaged condition to be doubtful, it may require investigation thereof.

(c) For the purpose of making damage stability calculations the volume and surface permeabilities shall be in general as follows:

Spaces	*Permeability*
Appropriated to Cargo, Coal or Stores	60
Occupied by Accomodation	95
Occupied by Machinery	85
Intended for Liquids	0 or 95*

* Whichever results in the more severe requirements.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Groter oppervlakte-deurdringbaarhede moet veronderstel word ten opsigte van ruimtes wat, in die nabyheid van die skade-watervlak, geen aansienlike hoeveelheid akkommodasie of masjinerie bevat nie, en ruimtes wat nie gewoonlik deur 'n aansienlike hoeveelheid vrag of voorraad in beslag geneem word nie.

(d) Veronderstelde mate van skade moet soos volg wees:

(i) In die lengte: 3,05 meter (10 voet) plus 3 persent van die lengte van die skip, of 10,67 meter (35 voet), watter syfer ook al die kleinste is. Waar die vereiste indelingsfaktor 0,33 of kleiner is, moet die veronderstelde mate van skade in die lengte na gelang nodig vermeerder word ten einde enige twee agtereenvolgende waterdigte hoofdwarsbeskotte in te sluit;

(ii) in die dwarste (binneboords gemeet vanaf die skeepsboord, reghoekig met die middellyn op die hoogte van die boonste indelingslaslyn) 'n afstand van een vyfde van die breedte van die skip soos omskryf in Regulasie 2 van hierdie Hoofstuk; en

(iii) vertikaal: vanaf die basislyn boontoe sonder beperking.

(iv) Indien geringer skade as dié aangegee in subparagrawe (i), (ii) en (iii) van hierdie paragraaf, 'n ernstiger toestand wat betref slagsy of verlies van metasentriese hoogte tot gevolg sou hê, moet sodanige skade by die berekenings veronderstel word.

(e) Onsimmetriese oorstroming moet beperk word tot 'n minimum wat bestaanbaar is met doeltreffende inrigtings. Wanneer dit nodig is om groot slagsyhoeke uit te skakel, moet die middele wat aangewend word, waar moontlik, outomaties werk, maar in enige geval waar beheermiddels vir dwarsskeepsoorstromingsinrigtings verskaf word, moet hulle van bokant die beskotdek afbedien kan word. Hierdie inrigtings, tesame met hul beheermiddels asook die maksimum slagsy voor herstel van die ewewig, moet vir die Administrasie aanneemlik wees.

Waar inrigtings vir dwarsskeepsoorstroming nodig is, moet dit nie langer as 15 minute duur om die ewewig te herstel nie. Geskikte inligting betreffende die gebruik van inrigtings vir dwarsskeepsoorstroming moet aan die gesagvoerder van die skip verstrek word.*

(f) Die finale toestand van die skip na beskadiging en, in die geval van onsimmetriese oorstroming, nadat maatreëls getref is om die ewewig te herstel, moet soos volg wees:

(i) In die geval van simmetriese oorstroming moet daar 'n positiewe oorblywende metasentriese hoogte van minstens 0,05 meter (2 duim) wees soos bereken volgens die konstante verplasingsmetode;

(ii) in die geval van onsimmetriese oorstroming mag die totale slagsy hoogstens sewe grade wees, maar in spesiale gevalle kan die Administrasie weens die onsimmetriese moment 'n groter slagsy toelaat, hoewel die finale slagsy in geen geval 15 grade te bowe mag gaan nie;

(iii) in geen geval mag die indompelingsgrenslyn in die finale stadium van die oorstroming onder die water wees nie. Indien daar gemeen word dat die indompelingsgrenslyn gedurende 'n intermediêre stadium van oorstroming onder water mag raak, kan die Administrasie sodanige ondersoeke en reëlings eis as wat hy vir die veiligheid van die skip nodig ag.

* Hier word verwys na die *Recommendation on a Standard Method for Establishing Compliance with the Requirements for Cross-Flooding Arrangements in Passenger Ships*, soos deur die Organisasie aangeneem ingevolge Resolusie A. 266 (VIII).

Higher surface permeabilities are to be assumed in respect of spaces which, in the vicinity of the damage waterplane, contain no substantial quantity of accommodation or machinery and spaces which are not generally occupied by any substantial quantity of cargo or stores.

(d) Assumed extent of damage shall be as follows:

(i) Longitudinal extent: 3,05 metres (10 feet) plus 3 per cent of the length of the ship, or 10,67 metres (35 feet) whichever is the less. Where the required factor of subdivision is 0,33 or less the assumed longitudinal extent of damage shall be increased as necessary so a to include any two consecutive main transverse watertight bulkheads;

(ii) transverse extent (measured inboard from the ship's side, at right angles to the centre line at the level of the deepest subdivision load line): a distance of one-fifth of the breadth of the ship, as defined in Regulation 2 of this Chapter; and

(iii) vertical extent: from the base line upwards without limit.

(iv) If any damage of lesser extent than that indicated in subparagraphs (i), (ii) and (iii) of this paragraph would result in a more severe condition regarding heel or loss of metacentric height, such damage shall be assumed in the calculations.

(e) Unsymmetrical flooding is to be kept to a minimum consistent with efficient arrangements. Where it is necessary to correct large angles of heel, the means adopted shall, where practicable, be self-acting, but in any case where controls to cross-flooding fittings are provided they shall be operable from above the bulkhead deck. These fittings together with their controls as well as the maximum heel before equalization shall be acceptable to the Administration. Where cross-flooding fittings are required the time for equalization shall not exceed 15 minutes. Suitable information concerning the use of cross-flooding fittings shall be supplied to the master of the ship.*

(f) The final conditions of the ship after damage and in the case of unsymmetrical flooding, after equalization measures have been taken shall be as follows:

(i) In the case of symmetrical flooding there shall be a positive residual metacentric height of at least 50 millimetres (2 inches) as calculated by the constant displacement method;

(ii) in the case of unsymmetrical flooding the total heel shall not exceed seven degrees, except that, in special cases, the Administration may allow additional heel due to the unsymmetrical moment, but in no case shall the final heel exceed fifteen degrees;

(iii) in no case shall the margin line be submerged in the final stage of flooding. If it is considered that the margin line may become submerged during an intermediate stage of flooding, the Administration may require such investigations and arrangements as it considers necessary for the safety of the ship.

* Reference is made to the Recommendation on a Standard Method for Establishing Compliance with the Requirements for Cross-Flooding Arrangements in Passenger Ships, adopted by the Organization by Resolution A.266 (VIII).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(g) Die gesagvoerder van die skip moet voorsien word van die nodige gegewens om voldoende stabiliteit in die onbeskadigde toestand onder dienstoestande te handhaaf ten einde die skip in staat te stel om kritieke beskadiging te weerstaan. In die geval van skepe waarin dwarsskeepsoorstroming by beskadiging nodig is, moet die gesagvoerder van die skip in kennis gestel word van die stabiliteitstoestande waarop die slagsyberekenings gebaseer is en moet hy gewaarsku word dat oormatige slagsy kan ontstaan indien die skip beskadig word wanneer hy hom in 'n minder gunstige toestand bevind.

(h) (i) Geen verslapping van die vereistes ten opsigte van skadestabiliteit mag deur die Administrasie oorweeg word nie tensy getoon word dat die metasentriese hoogte van die onbeskadigde skip wat in enige dienstoestand nodig is om aan hierdie vereiste te voldoen, vir die beoogde diens buitensporig is.

(ii) Verslappings van die vereistes vir skadestabiliteit mag slegs toegelaat word in buitengewone gevalle en onderworpe aan die voorwaarde dat die Administrasie daarvan oortuig moet wees dat die verhoudings, inrigtings en ander kenmerkende eienskappe van die skip vir die skip se stabiliteit na beskadiging die gunstigste is wat in die bepaalde omstandighede prakties uitvoerbaar en redelik is.

REGULASIE 8

Inlaai van ballas

Wanneer water vir ballasdoeleindes ingelaai word, moet die waterballas oor die algemeen nie vervoer word in tenks wat vir oliebrandstof bedoel is nie. In skepe waar dit prakties onuitvoerbaar is om te voorkom dat water in oliebrandstoftenks gehou word, moet uitrusting vir die afskeiding van olierige water tot tevredenheid van die Administrasie aangebring word, of anders moet ander alternatiewe middels wat vir die Administrasie aanneemlik is, verskaf word om van die olierige waterballas ontslae te raak.

REGULASIE 9

Piek- en masjinerieruimtebeskotte, astonnels, ens.

(a) (i) 'n Skip moet 'n voorpiek- of aanvaringsbeskot hê wat waterdig moet wees tot by die beskotdek. Hierdie beskot moet op 'n afstand van minstens 5 persent van die lengte van die skip en hoogstens 3,05 meter (10 voet) plus 5 persent van die lengte van die skip van die voorloodlyn aangebring wees.

(ii) Indien 'n skip 'n lang bobou op die voorskip het, moet die voorpiekbeskot weerdig deurloop tot die dek bo die beskotdek. Die verlenging hoef nie direk bo die beskot daaronder aangebring te word nie mits hy minstens 5 persent van die lengte van die skip van die voorloodlyn verwyder is en die deel van die beskotdek wat die trapsgewyse verspringing vorm, doeltreffend weerdig is.

(b) 'n Agterpiekbeskot en beskotte wat die masjinerieruimte, soos omskryf in Regulasie 2 van hierdie Hoofstuk, van die vrag- en passasiersruimtes voor en agter skei, moet ook aangebring en tot by die beskotdek waterdig gemaak word. Die agterpiekbeskot kan egter benede die beskotdek eindig mits die mate van veiligheid van die skip met betrekking tot indeling nie daardeur verminder word nie.

(c) In alle gevalle moet skroefaskokers in waterdigte ruimtes van middelmatige volume ingesluit wees. Die skroefaswerkbus moet geplaas wees in 'n waterdigte

(g) The master of the ships hall be supplied with the data necessary to maintain sufficient intact stability under service conditions to enable the ship to withstand the critical damage. In the case of ships requiring cross-flooding the master of the ship shall be informed of the conditions of stability on which the calculations of heel are based and be warned that excessive heeling might result should the ship sustain damage when in a less favourable condition.

(h) (i) No relaxation from the requirements for damage stability may be considered by the Administration unless it is shown that the intact metacentric height in any service condition necessary to meet these requirements is excessive for the service intended.

(ii) Relaxations from the requirements for damage stability shall be permitted only in exceptional cases and subject to the condition that the Administration is to be satisfied that the proportions, arrangements and other characteristics of the ship are the most favourable to stability after damage which can practically and reasonably be adopted in the particular circumstances.

REGULATION 8

Ballasting

When ballasting with water is necessary, the water ballast should not in general be carried in tanks intended for oil fuel. In ships in which it is not practicable to avoid putting water in oil fuel tanks, oily-water separator equipment to the satisfaction of the Administration shall be fitted, or other alternative means acceptable to the Administration shall be provided for disposing of the oily-water ballast.

REGULATION 9

Peak and machinery space bulkheads, shaft tunnels, etc.

(a) (i) A ship shall have a forepeak or collision bulkhead, which shall be watertight up to the bulkhead deck. This bulkhead shall be fitted not less than 5 per cent of the length of the ship, and not more than 3,05 metres (10 feet) plus 5 per cent of the length of the ship from the forward perpendicular.

(ii) If the ship has a long forward superstructure, the forepeak bulkhead shall be extended weathertight to the deck next above the bulkhead deck. The extension need not be fitted directly over the bulkhead below, provided it is at least 5 per cent of the length of the ship from the forward perpendicular, and the part of the bulkhead deck which forms the step is made effectively weathertight.

(b) An afterpeak bulkhead, and bulkheads dividing the machinery space, as defined in Regulation 2 of this Chapter, from the cargo and passenger spaces forward and after, shall also be fitted and made watertight up to the bulkhead deck. The afterpeak bulkhead may, however, be stepped below the bulkhead deck, provided the degree of safety of the ship as regards subdivision is not thereby diminished.

(c) In all cases stern tubes shall be enclosed in watertight spaces of moderate volume. The stern gland shall be situated in a watertight shaft tunnel or other

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

astonnel of 'n ander waterdigte ruimte wat geskei is van die skroefaskokerafdeling en so 'n volume het dat, indien dit as gevolg van lekkasie deur die skroefaswerkbus sou volloop, die indompelingsgrenslyn nie onder die water sal wees nie.

REGULASIE 10

Dubbele bome

(a) 'n Dubbele boom moet aangebring word wat loop vanaf die voorpiekbeskot tot by die agterpiekbeskot vir sover dit uitvoerbaar en met die ontwerp en behoorlike werking van die skip bestaanbaar is.

(i) In skepe van 50 meter (165 voet) en korter as 61 meter (200 voet) moet 'n dubbele boom minstens vanaf die masjinerieruimte tot by die voorpiekbeskot of so naby daaraan as doenlik aangebring word.

(ii) In skepe van 61 meter (200 voet) en korter as 76 meter (249 voet) moet 'n dubbele boom minstens buite die masjinerieruimte aangebring word en dié moet tot by die voor- en agterpiekbeskotte of tot so naby daaraan as doenlik strek.

(iii) In skepe van 76 meter (249 voet) en langer moet 'n dubbele boom midskeeps aangebring word en dié moet tot by die voor- en agterpiekbeskotte of tot so naby daaraan as doenlik strek.

(b) Waar 'n dubbele boom aangebring moet word, moet die diepte daarvan tot die tevredenheid van die Administrasie wees en moet die binneboom tot by die skeepsboorde reik op so 'n wyse dat hy die boom tot by die kimronding beskerm. Sodanige beskerming sal as bevredigend beskou word indien die snylyn van die buitenste rand van die kantplaat en die kimplaat nêrens laer is nie as 'n horisontale vlak wat loop deur die snypunt tussen die spantlyn op die grootspant en 'n dwarsskeepse diagonaal wat onder 'n hoek van 25 grade met die basislyn getrek is en dit sny op 'n punt wat op 'n afstand gelyk aan die helfte van die grootspantbreedte van die middellyn geleë is.

(c) Klein putte wat in verband met die afvoerinrigtings van die skeepsruime, ensovoorts, in die dubbele boom aangebring is, mag nie dieper wees as wat nodig is nie. Die put mag in geen geval dieper wees as die dubbele boom se diepte by die middellyn min 457 millimeter (18 duim) nie, en die put mag ook nie laer wees as die horisontale vlak waarvan in paragraaf (b) van hierdie Regulasie melding gemaak word nie. 'n Put wat tot by die buiteboom loop, word egter toegelaat aan die agterend van die astonnel van skroefskepe. Ander putte, (byvoorbeeld vir smeerolie onder die hoofmasjiene) kan deur die Administrasie toegelaat word indien hy daarvan oortuig is dat die inrigtings beskerming verleen wat ooreenkom met dié wat verleen word deur 'n dubbele boom wat aan hierdie Regulasie voldoen.

(d) 'n Dubbele boom hoef nie aangebring te word op die plek waar daar waterdigte afdelings van middelmatige grootte is wat uitsluitlik vir die vervoer van vloeistowwe gebruik word nie, mits die veiligheid van die skip in die geval van boom- of kantbeskadiging na die mening van die Administrasie nie daardeur verminder word nie.

(e) In die geval van skepe waarop die bepalings van paragraaf (d) van Regulasie 1 van hierdie Hoofstuk van toepassing is en wat binne die grense van 'n kort internasionale reis, soos in Regulasie 2 van Hoofstuk III omskryf, op gereëlde diens gebruik word, kan die Administrasie toelaat dat daar afgesien word van 'n

watertight space separate from the stern tube compartment and of such volume that, if flooded by leakage through the stern gland, the margin line will not be submerged.

REGULATION 10

Double bottoms

(a) A double bottom shall be fitted extending from the forepeak bulkhead to the afterpeak bulkhead as far as this is practicable and compatible with the design and proper working of the ship.

(i) In ships 50 metres (165 feet) and under 61 metres (200 feet) in length a double bottom shall be fitted at least from the machinery space to the forepeak bulkhead, or as near thereto as practicable.

(ii) In ships 61 metres (200 feet) and under 76 metres (249 feet) in length a double bottom shall be fitted at least outside the machinery space, and shall extend to the fore and after peak bulkheads, or as near thereto as practicable.

(iii) In ships 76 metres (249 feet) in length and upwards, a double bottom shall be fitted amidships, and shall extend to the fore and after peak bulkheads, or as near thereto as practicable.

(b) Where a double bottom is required to be fitted its depth shall be to the satisfaction of the Administration and the inner bottom shall be continued out to the ship's sides in such a manner as to protect the bottom to the turn of the bilge. Such protection will be deemed satisfactory if the line of intersection of the outer edge of the margin plate with the bilge plating is not lower at any part than a horizontal plane passing through the point of intersection with the frame line amidships of a transverse diagonal line inclined at 25 degrees to the base line and cutting it at a point one-half the ship's moulded breadth from the middle line.

(c) Small wells constructed in the double bottom in connection with drainage arrangements of holds, etc., shall not extend downwards more than necessary. The depth of the well shall in no case be more than the depth less 457 millimetres (18 inches) of the double bottom at the centreline, nor shall the well extend below the horizontal plane referred to in paragraph (b) of this Regulation. A well extending to the outer bottom is, however, permitted at the after end of the shaft tunnel of screw-ships. Other wells (e.g., for lubricating oil under main engines) may be permitted by the Administration if satisfied that the arrangements give protection equivalent to that afforded by a double bottom complying with this Regulation.

(d) A double bottom need not be fitted in way of watertight compartments of moderate size used exclusively for the carriage of liquids, provided the safety of the ship, in the event of bottom or side damage, is not, in the opinion of the Administration, thereby impaired.

(e) In the case of ships to which the provisions of paragraph (d) of Regulation 1 of this Chapter apply and which are engaged on regular service within the limits of a short international voyage as defined in Regulation 2 of Chapter III, the Administration may permit a double bottom to be dispensed with in any

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

dubbele boom in enige deel van die skip wat ingedeel is deur middel van 'n faktor van hoogstens 0,50, mits hy daarvan oortuig is dat die aanbring van 'n dubbele boom in daardie deel nie bestaanbaar sou wees met die ontwerp en die behoorlike werking van die skip nie.

REGULASIE 11

Toewysing, aanbring en aanteken van indelingslaslyne

(a) Ten einde te verseker dat die vereiste mate van indeling gehandhaaf word, moet 'n laslyn wat ooreenstem met die goedgekeurde indelingsdiepgang, toegewys en aan die skeepsboorde aangebring word. As 'n skip ruimtes het wat spesiaal vir die akkommodasie van passasiers of die vervoer van vrag ingerig is en die eienaars dit verlang, kan daar een of meer addisionele laslyne aan hom toegewys en aangebring word om ooreen te kom met die indelingsdiepgange wat die Administrasie vir die alternatiewe dienstoestande mag goedkeur.

(b) Die indelingslaslyne wat toegewys en aangebring is, moet op die Passasierskipveiligheidsertifikaat aangeteken word en moet onderskei word deur die aanwysing C.1 waar hoofsaaklik passasiers vervoer word, en C.2, C.3, ensovoorts, vir die alternatiewe toestande.

(c) Die vryboord wat ooreenstem met elk van hierdie laslyne, moet op dieselfde plek en vanaf dieselfde deklyn gemeet word as die vryboorde wat bepaal is ooreenkomstig die Internasionale Laslynkonvensie wat van krag is.

(d) Die vryboord wat ooreenkom met elke goedgekeurde indelingslaslyn en die dienstoestande waarvoor dit goedgekeur is, moet duidelik op die Passasierskipveiligheidsertifikaat aangegee word.

(e) In geen geval mag 'n indelingslaslynmerk aangebring word bo die hoogste laslyn in soutwater soos bepaal deur die sterkte van die skip en/of die Internasionale Laslynkonvensie wat van krag is nie.

(f) Wat ook al die posisie van die indelingslaslynmerke mag wees, mag 'n skip in geen geval so gelaai word dat die laslynmerk wat pas by die jaargety en die vaargebied, soos bepaal ooreenkomstig die Internasionale Laslynkonvensie wat van krag is, onder die water is nie.

(g) 'n Skip mag in geen geval so gelaai word dat wanneer hy in soutwater is, die indelingslaslynmerk wat by die bepaalde reis en dienstoestand pas, onder die water is nie.

REGULASIE 12

Konstruksie en eerste toetsing van waterdigte beskotte, ens.

(a) Elke waterdigte indelingsbeskot, hetsy dwarsskeeps of langsskeeps, moet so gebou word dat hy binne redelike perke teen die drukking veroorsaak deur die maksimum waterkolom wat hy sal moet weerstaan indien die skip beskadig sou word, maar minstens teen die drukking uitgeoefen deur 'n waterkolom tot by die indompelingsgrenslyn, bestand sal wees. Sulke beskotte moet tot tevredenheid van die Administrasie gebou wees.

(b) (i) Trapsgewyse verspringings en nisse in beskotte moet waterdig en so sterk wees as die beskot op die plek waar elkeen voorkom.

(ii) Waar spante of balke deur 'n waterdigte dek of beskot loop, moet so 'n dek of beskot struktureel sonder die aanwending van hout of sement, waterdig gemaak word.

part of the ship which is subdivided by a factor not exceeding 0,50, if satisfied that the fitting of a double bottom in that part would not be compatible with the design and proper working of the ship.

REGULATION 11

Assigning, marking and recording of subdivision load lines

(a) In order that the required degree of subdivision shall be maintained, a load line corresponding to the approved subdivision draught shall be assigned and marked on the ship's sides. A ship having spaces which are specially adapted for the accommodation of passengers and the carriage of cargo alternatively may, if the owners desire, have one or more additional load lines assigned and marked to correspond with the subdivision draughts which the Administration may approve for the alternative service conditions.

(b) The subdivision load lines assigned and marked shall be recorded in the Passenger Ship Safety Certificate, and shall be distinguished by the notation C.1 for the principal passenger condition, and C.2, C.3, etc., for the alternative conditions.

(c) The freeboard corresponding to each of these load lines shall be measured at the same position and from the same deck line as the freeboards determined in accordance with the International Convention respecting Load Lines in force.

(d) The freeboard corresponding to each approved subdivision load line and the conditions of service for which it is approved, shall be clearly indicated on the Passenger Ship Safety Certificate.

(e) In no case shall any subdivision load line mark be placed above the deepest load line in salt water as determined by the strength of the ship and/or the International Convention respecting Load Lines in force.

(f) Whatever may be the position of the subdivision load line marks, a ship shall in no case be loaded so as to submerge the load line mark appropriate to the season and locality as determined in accordance with the International Convention respecting Load Lines in force.

(g) A ship shall in no case be so loaded that when she is in salt water the subdivision load line mark appropriate to the particular voyage and condition of service is submerged.

REGULATION 12

Construction and initial testing of watertight bulkheads, etc.

(a) Each watertight subdivision bulkhead, whether transverse or longitudinal, shall be constructed in such a manner that it shall be capable of supporting, with a proper margin of resistance, the pressure due to the maximum head of water which it might have to sustain in the event of damage to the ship but at least the pressure due to a head of water up to the margin line. The construction of these bulkheads shall be to the satisfaction of the Administration.

(b) (i) Steps and recesses in bulkheads shall be watertight and as strong as the bulkhead at the place where each occurs.

(ii) Where frames or beams pass through a watertight deck or bulkhead, such deck or bulkhead shall be made structurally watertight without the use of wood or cement.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(c) Dit is nie verpligtend om hoofafdelings te toets deur hulle met water te vul nie. Wanneer toetsing deur vulling met water nie uitgevoer word nie, is 'n spuitslangtoets verpligtend; hierdie toets moet uitgevoer word wanneer die uitrusting van die skip die mees gevorderde stadium bereik het. 'n Deeglike inspeksie van die waterdigte beskotte moet in elk geval uitgevoer word.

(d) Die voorpiek, dubbele bome (met inbegrip van kokerkiele) en binnehuide moet getoets word met water met 'n drukhoogte wat aan die bepalings van paragraaf (a) van hierdie Regulasie voldoen.

(e) Tenks wat bedoel is om vloeistowwe te bevat en deel uitmaak van die indeling van die skip, moet met betrekking tot digtheid getoets word met water met 'n drukhoogte gelyk aan die van 'n kolom water tot by die boonste indelingslaslyn of met 'n kolom met 'n hoogte gelyk aan twee derdes van die diepte vanaf die bokant van die kiel tot die indompelingsgrenslyn op die plek van die tenks, watter een ook al die grootste is; met dien verstande dat die toetsdrukhoogte in geen geval minder as 0,92 meter (3 voet) bo die bokant van die tenk mag wees nie.

(f) Die toetse vermeld in paragrawe (d) en (e) van hierdie Regulasie word uitgevoer met die doel om te verseker dat die indelingsbou-inrigtings waterdig is en moet nie beskou word as 'n toets van die geskiktheid van enige afdeling vir die opslag van oliebrandstof of vir ander spesiale doeleindes waarvoor, met inagneming van die hoogte wat die vloeistof in die tenk of sy verbindings mag bereik, 'n strenger toets vereis mag word nie.

REGULASIE 13

Openings in waterdigte beskotte

(a) Die getal openings in waterdigte beskotte moet verminder word tot die minimum wat bestaanbaar is met die ontwerp en behoorlike gebruik van die skip; bevredigende middels moet verskaf word vir die sluiting van hierdie openings.

(b) (i) Wanneer pype, spuipype, elektriese kabels ens., deur waterdigte indelingsbeskotte gevoer word, moet maatreëls getref word om die integriteit van die waterdigtheid van die beskotte te verseker.

(ii) Afsluitkleppe en krane wat nie 'n deel vorm van 'n pypleidingstelsel nie, word nie in waterdigte indelingsbeskotte toegelaat nie.

(iii) Lood of ander materiaal wat gevoelig is vir hitte, moet nie gebruik word in stelsels wat deur waterdigte indelingsbeskotte loop waar verswakking van sodanige stelsels in die geval van brand die waterdigte integriteit van die beskotte sal benadeel nie.

(c) (i) Geen deure, mangate of toegangsopenings word toegelaat nie—

(1) in die aanvaringsbeskot onder die indompelingsgrenslyn;

(2) in waterdigte dwarsbeskotte wat 'n vragruimte van 'n aangrensende vragruimte of van 'n permanente of reserwebunker skei, behalwe soos in paragraaf (l) van hierdie Regulasie bepaal.

(ii) Behalwe soos in subparagraaf (iii) van hierdie paragraaf bepaal, mag daar hoogstens een pyp vir die behandeling van vloeistof in die voorpiektenk deur die aanvaringsbeskot onder die indompelingsgrenslyn loop en sodanige pyp moet toegerus wees met 'n skroefklep wat bo die beskotdek vandaan bedien kan word, en die klepkas moet in die voorpiek teen die aanvaringsbeskot bevestig wees.

(c) Testing main compartments by filling them with water is not compulsory. When testing by filling with water is not carried out, a hose test is compulsory; this test shall be carried out in the most advanced stage of the fitting out of the ship. In any case, a thorough inspection of the watertight bulkheads shall be carried out.

(d) The forepeak, double bottoms (including duct keels) and inner skins shall be tested with water to a head corresponding to the requirements of paragraph (a) of this Regulation.

(e) Tanks which are intended to hold liquids, and which form part of the subdivision of the ship, shall be tested for tightness with water to a head up to the deepest subdivision load line or to a head corresponding to two-thirds of the depth from the top of keel to the margin line in way of the tanks, whichever is the greater; provided that in no case shall the test head be less than 0,92 metres (3 feet) above the top of the tank.

(f) The tests referred to in paragraphs (d) and (e) of this Regulation are for the purpose of ensuring that the subdivision structural arrangements are watertight and are not to be regarded as a test of the fitness of any compartment for the storage of oil fuel or for other special purposes for which a test of a superior character may be required depending on the height to which the liquid has access in the tank or its connections.

REGULATION 13

Openings in watertight bulkheads

(a) The number of openings in watertight bulkheads shall be reduced to the minimum compatible with the design and proper working of the ship; satisfactory means shall be provided for closing these openings.

(b) (i) Where pipes, scuppers, electric cables, etc. are carried through watertight subdivision bulkheads, arrangements shall be made to ensure the integrity of the watertightness of the bulkheads.

(ii) Valves and cocks not forming part of a piping system shall not be permitted in watertight subdivision bulkheads.

(iii) Lead or other heat sensitive materials shall not be used in systems which penetrate watertight subdivision bulkheads, where deterioration of such systems in the event of fire would impair the watertight integrity of the bulkheads.

(c) (i) No doors, manholes, or access openings are permitted—

(1) in the collision bulkhead below the margin line;

(2) in watertight transverse bulkheads dividing a cargo space from an adjoining cargo space or from a permanent or reserve bunker, except as provided in paragraph (1) of this Regulation.

(ii) Except as provided in sub-paragraph (iii) of this paragraph, the collision bulkhead may be pierced below the margin line by not more than one pipe for dealing with fluid in the forepeak tank, provided that the pipe is fitted with a screwdown valve capable of being operated from above the bulkhead deck, the valve chest being secured inside the forepeak to the collision bulkhead.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(iii) Indien die voorpiek verdeel is om twee verskillende soorte vloeistowwe te hou, kan die Administrasie toelaat dat deur die aanvaringsbeskot onder die indompelingsgrenslyn twee pype loop wat toegerus is soos in subparagraaf (ii) van hierdie paragraaf vereis; met dien verstande dat die Administrasie daarvan oortuig is dat sodanige tweede pyp nie anders aangebring kan word nie en dat, met inagneming van die addisionele indeling in die voorpiek, die veiligheid van die skip gehandhaaf word.

(d) (i) Waterdigte deure in beskotte tussen permanente en reserwebunkers moet altyd toeganklik wees, behalwe soos in subparagraaf (ii) van paragraaf (k) van hierdie Regulasie ten aansien van tussendek-bunkerdeure bepaal.

(ii) Bevredigende maatreëls moet deur middel van skerms of andersins getref word om te verhoed dat die steenkool die sluiting van waterdigte bunkerdeure sal belemmer.

(e) Binne ruimtes bevattende die hoof- en hulpaandryfmasjinerie, insluitende ketels wat in die behoeftes van aandrywing voorsien en alle permanente bunkers, mag daar, afgesien van deure na bunkers en astonnels, nie meer as een deur in elke hoofdwarsbeskot aangebring word nie. Wanneer twee of meer skroefasse aangebring word, moet die tonnels met 'n interkommunikasiegang verbind word. Daar mag slegs een deur tussen die masjinerieruimte en die tonnelruimtes wees waar twee skroefasse aangebring word en slegs twee deure waar daar meer as twee skroefasse is. Al hierdie deure moet van die skuiftipe wees en moet so geleë wees dat die drempels so hoog as moontlik is. Die handinringting wat gebruik word om hierdie deure bo die beskotdek vandaan te bedien, moet buitekant die ruimtes bevattende die masjinerie geleë wees indien dit bestaanbaar is met 'n bevredigende reëling van die nodige tuig.

(f) (i) Waterdigte deure moet skuifdeure of skarnierdeure of deure van gelykwaardige tipe wees. Plaatdeure wat slegs deur middel van boute bevestig word, en deure wat deur neerlating of deur middel van 'n valgewig gesluit moet word, is nie toelaatbaar nie.

(ii) Skuifdeure kan van die tipe wees wat—

net met die hand geskuif word, of

kragaandrywing het en ook met die hand geskuif kan word.

(iii) Gemagtigde waterdigte deure kan derhalwe in drie klasse verdeel word, nl.:

Klas 1—skarnierdeure;

Klas 2—skuifdeure wat met die hand geskuif word;

Klas 3—skuifdeure wat kragaandrywing het en ook met die hand geskuif kan word.

(iv) Die middels wat gebruik word om 'n waterdigte deur te bedien, ongeag of die deur kragaandrywing het of nie, moet die deur kan sluit wanneer die skip 15 grade na die een of ander kant toe oorhel.

(v) In alle klasse waterdigte deure moet daar aanwysers aangebring word wat op alle bedieningspunte waarvandaan die deure nie gesien kan word nie, aantoon of die deure oop of toe is. Indien enige van die waterdigte deure, van watter klas ook al, nie so aangebring is dat hy van 'n sentrale beheerpunt af gesluit kan word nie, moet hy toegerus word met 'n meganiese, elektriese, telefoniese of ander geskikte regstreekse kommunikasiemiddel, wat dit vir die offisier van die wag moontlik maak om gou in aanraking te kom met die persoon wat kragtens vorige bevele daarvoor verantwoordelik is om die betrokke deur te sluit.

(iii) If the forepeak is divided to hold two different kinds of liquids the Administration may allow the collision bulknead to be pierced below the margin line by two pipes, each of which is fitted as required by subparagraph (ii) of this paragraph, provided the Administration is satisfied that there is no practical alternative to the fitting of such a second pipe and that, having regard to the additional subdivision provided in the forepeak, the safety of the ship is maintained.

(d) (i) Watertight doors fitted in bulkheads between permanent and reserve bunkers shall be always accessible, except as provided in subparagraph (ii) of paragraph (k) of this Regulation for between deck bunker doors.

(ii) Satisfactory arrangements shall be made by means of screens or otherwise to prevent the coal from interfering with the closing of watertight bunker doors.

(e) Within spaces containing the main and auxiliary propelling machinery including boilers serving the needs of propulsion and all permanent bunkers, not more than one door apart from the doors to bunkers and shaft tunnels may be fitted in each main transverse bulkhead. Where two or more shafts are fitted the tunnels shall be connected by an inter-communicating passage. There shall be only one door between the machinery space and the tunnel spaces where two shafts are fitted and only two doors where there are more than two shafts. All these doors shall be of the sliding type and shall be located so as to have their sills as high as practicable. The hand gear for operating these doors from above the bulkhead deck shall be situated outside the spaces containing the machinery if this is consistent with a satisfactory arrangement of the necessary gearing.

(f) (i) Watertight doors shall be sliding doors or hinged doors or doors of an equivalent type. Plate doors secured only by bolts and doors required to be closed by dropping or by the action of a dropping weight are not permitted.

(ii) Sliding doors may be either—

hand-operated only; or

power-operated as well as hand-operated.

(iii) Authorized watertight doors may therefore be divided into three Classes:

Class 1—hinged doors;

Class 2—hand-operated sliding doors;

Class 3—sliding doors which are power-operated as well as hand-operated.

(iv) The means of operation of any watertight door whether power-operated or not shall be capable of closing the door with the ship listed to 15 degrees either way.

(v) In all classes of watertight doors indicators shall be fitted which show, at all operating stations from which the doors are not visible, whether the doors are open or closed. If any of the watertight doors, of whatever Class, is not fitted so as to enable it to be closed from a central control station, it shall be provided with a mechanical, electrical, telephonic, or any other suitable direct means of communication, enabling the officer of the watch promptly to contact the person who is responsible for closing the door in question, under previous orders.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(g) Skarnierdeure (Klas 1) moet toegerus word met snelwerkende sluitmiddels, soos knippe, wat weerskante die beskot vandaan bedien kan word.

(h) Skuifdeure wat met die hand geskuif word (Klas 2) kan vir horisontale of vertikale beweging ingerig word. Dit moet moontlik wees om die meganisme by die deur self van albei kante, asook vanaf 'n toeganklike plek bo die beskotdek, te bedien deur middel van 'n wenbeweging of deur middel van 'n ander beweging met dieselfde veiligheidswaarborg en van 'n goedgekeurde tipe. Afwykings van die vereiste ten opsigte van bediening van weerskante kan toegelaat word indien die nakoming van hierdie vereistes onmoontlik is as gevolg van die inrigting van die ruimtes. Wanneer 'n handinrigting gebruik word, moet dit nie meer as 90 sekondes vereis om die deur heeltemal te sluit wanneer die vaartuig regop is nie.

(i) (i) Skuifdeure met kragaandrywing (Klas 3) kan vir vertikale of horisontale beweging ingerig word. Wanneer 'n deur vanaf 'n sentrale beheerpunt deur kragaandrywing geskuif moet word, moet die skuifinrigting so ingerig wees dat die deur ook by die deur self van weerskante af deur kragaandrywing geskuif kan word. Die inrigting moet sodanig wees dat die deur outomaties sal sluit indien hy deur plaaslike beheer geopen word nadat hy vanaf die sentrale beheerpunt gesluit is, en ook sodanig dat 'n deur gesluit gehou kan word deur middel van plaaslike inrigtings wat verhoed dat die deur vanaf die boonste beheerpunt geopen word. Daar moet aan elke kant van die beskot plaaslike beheerhandvatsels aangebring word wat in verband staan met die meganiese inrigting en dié moet so ingerig wees dat persone wat deur die deuropening loop, albei handvatsels in die oop posisie kan hou sonder om die sluitmeganisme per ongeluk in werking te stel. Skuifdeure met kragaandrywing moet toegerus wees met handinrigtings wat aan weerskante by die deur self en ook vanaf 'n toeganklike plek bo die beskotdek in werking gebring kan word deur 'n wenbeweging of 'n ander beweging met dieselfde veiligheidswaarborg en van 'n goedgekeurde tipe. Daar moet voorsiening gemaak word om deur middel van 'n geluidsein waarskuwings te gee dat die deur begin toegaan en sal aanhou beweeg totdat hy heeltemal gesluit is. Die sluiting van die deur moet genoeg tyd vereis om veiligheid te verseker.

(ii) Daar moet minstens twee onafhanklike kragbronne wees wat al die deure onder beheer kan oopmaak en sluit en wat elkeen in staat is om al die deure gelyktydig te skuif. Die twee kragbronne moet beheer word vanaf die sentrale punt op die brug, wat toegerus moet wees met al die nodige aanwysers om te kontroleer dat elk van die twee kragbronne in staat is om die diens bevredigend te verrig.

(iii) In die geval van hidrouliese werking moet elke kragbron bestaan uit 'n pomp wat al die deure in hoogstens 60 sekondes kan sluit. Daarbenewens moet daar vir die hele installasie hidrouliese akkumulators wees met 'n voldoende vermoë om al die deure minstens drie keer te skuif, dit wil sê sluit, oopmaak en sluit. Die vloeistof wat gebruik word, moet sodanig wees dat dit nie sal vries by enige van die temperature wat die skip straks gedurende sy diens sal teenkom nie.

(j) (i) Waterdigte skarnierdeure (Klas 1) in passasiers-, bemannings- en werkruimtes word slegs toegelaat bo 'n dek waarvan die onderkant op sy laagste punt aan die kant minstens 2,13 meter (7 voet) bo die boonste indelingslaslyn lê.

(g) Hinged doors (Class 1) shall be fitted with quick action closing devices, such as catches, workable from each side of the bulkhead.

(h) Hand-operated sliding doors (Class 2) may have a horizontal or vertical motion. It shall be possible to operate the mechanism at the door itself from either side, and in addition, from an accessible position above the bulkhead deck, with an all round crank motion, or some other movement providing the same guarantee of safety and of an approved type. Departures from the requirement of operation on both sides may be allowed, if this requirement is impossible owing to the layout of the spaces. When operating a hand gear the time necessary for the complete closure of the door with the vessel upright, shall not exceed 90 seconds.

(i) (i) Power-operated sliding doors (Class 3) may have a vertical or horizontal motion. If a door is required to be power-operated from a central control, the gearing shall be so arranged that the door can be operated by power also at the door itself from both sides. The arrangement shall be such that the door will close automatically if opened by local control after being closed from the central control, and also such that any door can be kept closed by local systems which will prevent the door from being opened from the upper control. Local control handles in connection with the power gear shall be provided each side of the bulkhead and shall be so arranged as to enable persons passing through the doorway to hold both handles in the open position without being able to set the closing mechanism in operation accidentally. Power-operated sliding doors shall be provided with hand gear workable at the door itself on either side and from an accessible position above the bulkhead deck, with an all round crank motion or some other movement providing the same guarantee of safety and of an approved type. Provision shall be made to give warnings by sound signal that the door has begun to close and will continue to move until it is completely closed. The door shall take a sufficient time to close to ensure safety.

(ii) There shall be at least two independent power sources capable of opening and closing all the doors under control, each of them capable of operating all the doors simultaneously. The two power sources shall be controlled from the central station on the bridge provided with all the necessary indicators for checking that each of the two power sources is capable of giving the required service satisfactorily.

(iii) In the case of hydraulic operation, each power source shall consist of a pump capable of closing all doors in not more than 60 seconds. In addition, there shall be for the whole installation hydraulic accumulators of sufficient capacity to operate all the doors at least three times, i.e., closed-open-closed. The fluid used shall be one which does not freeze at any of the temperatures liable to be encountered by the ship during its service.

(j) (i) Hinged watertight doors (Class 1) in passenger, crew and working spaces are only permitted above a deck the underside of which, at its lowest point at side, is at least 2,13 metres (7 feet) above the deepest subdivision load line.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(ii) Waterdigte deure met drempels bo die boonste laslyn en onder die lyn wat in die voorafgaande subparagraaf gespesifiseer word, moet skuifdeure wees en kan van die handbediende tipe (Klas 2) wees, behalwe in vaartuie wat kort internasionale reise onderneem en 'n indelingsfaktor van 0,50 of kleiner moet hê waarin al sodanige deure kragaandrywing moet hê. Wanneer verkeersgange in verband met verkoelde vrag en ventilasie- of kunsmatige trekleidings deur meer as een waterdigte hoofindelingsbeskot loop, moet die deure by sulke openings kragaandrywing hê.

(k) (i) Waterdigte deure wat soms op see oopgemaak kan word en waarvan die drempels onder die boonste indelingslaslyn is, moet skuifdeure wees. Die volgende voorskrifte is van toepassing:

(1) Wanneer die getal van sulke deure (uitgesonderd deure by die ingange na astonnels) groter as vyf is, moet al hierdie deure, asook dié by die ingange na astonnels of ventilasie- of kunsmatige trekleidings, kragaandrywing hê (Klas 3) en moet hulle vanaf 'n sentrale punt op die brug gelyktydig gesluit kan word;

(2) wanneer die getal van sulke deure (uitgesonderd deure by die ingange na astonnels) groter as een is maar nie groter as vyf nie—

(a) en die skip geen passasiersruimtes onder die beskotdek het nie, kan al bogenoemde deure handbediende deure wees (Klas 2);

(b) en die skip passasiersruimtes onder die beskotdek het, moet al bogenoemde deure kragaandrywing hê (Klas 3) en moet hulle vanaf 'n sentrale punt op die brug gelyktydig gesluit kan word;

(3) wanneer daar in 'n skip slegs twee sulke waterdigte deure is en hulle na die masjinerieruimte lei of daarin geleë is, kan die Administrasie toelaat dat hierdie twee deure slegs met die hand bedien word (Klas 2).

(ii) Indien waterdigte skuifdeure wat soms op see met die oog op die trimming van steenkool oop moet wees, tussen bunkers in die tussendekke onder die beskotdek aangebring is, moet hierdie deure kragaandrywing hê. Die oopmaak en toemaak van hierdie deure moet opgeteken word in sodanige register as wat die Administrasie voorskryf.

(l) (i) Indien die Administrasie van die noodsaaklikheid van sulke deure oortuig is, kan waterdigte deure van bevredigende konstruksie aangebring word in waterdigte beskotte wat tussendekse vragruimtes skei. Sulke deure kan skarnier-, rol- of skuifdeure wees, maar hulle mag nie afstandsbeheer hê nie. Hulle moet so hoog en so ver van die huidbeplating as moontlik aangebring word maar in geen geval mag die buiteboordse vertikale rande nader aan die huidbeplating as een vyfde van die breedte van die skip soos in Regulasie 2 van hierdie Hoofstuk omskryf, wees nie en sodanige afstand moet reghoekig met die middellyn van die skip op die hoogte van die boonste indelingslaslyn gemeet word.

(ii) Sulke deure moet toegemaak word voordat die reis begin en moet gedurende die vaart toegehou word; en die tye waarop sulke deure in die hawe oopgemaak en voor die skip se vertrek uit die hawe toegemaak word, moet in die register opgeteken word. Indien enige van die deure gedurende die reis toeganklik is, moet hulle toegerus wees met 'n inrigting wat die ongemagtigde oopmaak daarvan sal verhoed. Wanneer die voorneme is om sulke deure aan te bring, moet die getal en inrigtings spesiaal deur die Administrasie oorweeg word.

(ii) Watertight doors, the sills of which are above the deepest load line and below the line specified in the preceding subparagraph shall be sliding doors and may be hand-operated (Class 2), except in vessels engaged on short international voyages and required to have a factor of subdivision of 0,50 or less in which all such doors shall be power operated. When trunkways in connection with refrigerated cargo and ventilation or forced draught ducts are carried through more than one main watertight subdivision bulkhead, the doors at such openings shall be operated by power.

(k) (i) Watertight doors which may sometimes be opened at sea, and the sills of which are below the deepest subdivision load line shall be sliding doors. The following rules shall apply:

(1) When the number of such doors (excluding doors at entrances to shaft tunnels) exceeds five, all of these doors and those at the entrance to shaft tunnels or ventilation or forced draught ducts, shall be power-operated (Class 3) and shall be capable of being simultaneously closed from a central station situated on the bridge;

(2) when the number of such doors (excluding doors at entrances to shaft tunnels) is greater than one, but does not exceed five—

(a) where the ship has no passenger spaces below the bulkhead deck, all the above-mentioned doors may be hand-operated (Class 2);

(b) where the ship has passenger spaces below the bulkhead deck all the above-mentioned doors shall be power-operated (Class 3) and shall be capable of being simultaneously closed from a central station situated on the bridge;

(3) in any ship where there are only two such watertight doors and they are into or within the space containing machinery, the Administration may allow these two doors to be hand-operated only (Class 2).

(ii) If sliding watertight doors which have sometimes to be open at sea for the purpose of trimming coal are fitted between bunkers in the between decks below the bulkhead deck, these doors shall be operated by power. The opening and closing of these doors shall be recorded in such log book as may be prescribed by the Administration.

(l) (i) If the Administration is satisfied that such doors are essential, watertight doors of satisfactory construction may be fitted in watertight bulkheads dividing cargo between deck spaces. Such doors may be hinged, rolling or sliding doors but shall not be remotely controlled. They shall be fitted at the highest level and as far from the shell plating as practicable, but in no case shall the outboard vertical edges be situated at a distance from the shell plating which is less than one-fifth of the breadth of the ship, as defined in Regulation 2 of this Chapter, such distance being measured at right angles to the centre line of the ship at the level of the deepest subdivision load line.

(ii) Such doors shall be closed before the voyage commences and shall be kept closed during navigation; and the time of opening such doors in port and of closing them before the ship leaves port shall be entered in the log book. Should any of the doors be accessible during the voyage, they shall be fitted with a device which prevents unauthorized opening. When it is proposed to fit such doors, the number and arrangements shall receive the special consideration of the Administration.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(m) Behalwe in masjinerieruimtes word verplaasbare plate aan beskotte nie toegelaat nie. Sulke plate moet altyd op hul plek wees voordat die skip die hawe verlaat en mag nie gedurende die vaart verwyder word nie behalwe wanneer dit gebiedend noodsaaklik is. Wanneer hulle teruggeplaas word, moet die nodige voorsorgmaatreëls getref word om te verseker dat die nate waterdig is.

(n) Alle waterdigte deure moet gedurende die vaart toegehou word behalwe wanneer hulle noodsaaklikerwys oopgemaak word vir die bediening van die skip, en hulle moet altyd gereed wees om onmiddellik toegemaak te word.

(o) (i) Wanneer verkeersgange of tonnels vir toegang vanaf die bemanningsakkommodasie na die stookruimte, vir pypleidings of vir 'n ander doel, deur waterdigte hoofdwarsbeskotte loop, moet hulle waterdig wees en voldoen aan die vereistes van Regulasie 16 van hierdie Hoofstuk. Indien so 'n tonnel of verkeersgang op see as 'n deurgang gebruik word, moet die toegang tot minstens een van sy uiteindes deur 'n koker wees wat waterdig tot op 'n hoogte strek wat voldoende is om toegang bo die indompelingsgrenslyn te verseker. Toegang tot die ander uiteinde van die verkeersgang of tonnel kan verkry word deur 'n waterdigte deur van die tipe wat deur sy posisie in die skip vereis word. Sulke verkeersgange of tonnels mag nie deur die eerste indelingsbeskot agter die aanvaringsbeskot loop nie.

(ii) Wanneer die voorneme is om tonnels of verkeersgange wat deur waterdigte hoofdwarsbeskotte loop, vir kunsmatige trek aan te bring, moet hulle spesiaal deur die Administrasie oorweeg word.

REGULASIE 14

Openings in die huidbeplating onderkant die indompelingsgrenslyn

(a) Die getal openings in die huidbeplating moet verminder word tot die minimum wat bestaanbaar is met die ontwerp en die behoorlike bediening van die skip.

(b) Die inrigting en die doeltreffendheid van die middels vir die toemaak van 'n opening in die huidbeplating moet bestaanbaar wees met die doel waarvoor dit bestem is en die posisie waarin dit aangebring word en moet in die algemeen die Administrasie tevrede stel.

(c) (i) Indien die laagste punte van die openings van 'n patryspoort in 'n tussendek laer is as 'n lyn wat ewewydig getrek is aan die beskotdek op die skeepsboord en wat sy laagste punt het op 'n hoogte gelyk aan 2½ persent van die breedte van die skip bo die boonste indelingslaslyn, moet alle patryspoorte in daardie tussendek van 'n tipe wees wat nie oopgemaak kan word nie.

(ii) Alle patryspoorte waarvan die laagste punte van hul openings onderkant die indompelingsgrenslyn geleë is, behalwe dié wat ooreenkomstig subparagraaf (i) van hierdie paragraaf van 'n tipe moet wees wat nie oopgemaak kan word nie, moet van sodanige konstruksie wees dat persone doeltreffend verhinder word om hulle sonder die toestemming van die gesagvoerder van die skip oop te maak.

(iii) (1) Indien die laagste punt van die opening van 'n patryspoort vermeld in subparagraaf (ii) van hierdie paragraaf in die geval van 'n tussendek laer is as 'n lyn wat ewewydig getrek is aan die beskotdek op die skeepsboord en wat sy laagste punt het 1,37 meter (4½ voet) plus 2½ persent van die breedte van die skip bo die water wanneer die skip 'n hawe verlaat, moet al

(m) Portable plates on bulkheads shall not be permitted except in machinery spaces. Such plates shall always be in place before the ship leaves port, and shall not be removed during navigation except in case of urgent necessity. The necessary precautions shall be taken in replacing them to ensure that the joints shall be watertight.

(n) All watertight doors shall be kept closed during navigation except when necessarily opened for the working of the ship, and shall always be ready to be immediately closed.

(o) (i) Where trunkways or tunnels for access from crew accommodation to the stokehold, for piping, or for any other purpose are carried through main transverse watertight bulkheads, they shall be watertight and in accordance with the requirements of Regulation 16 of this Chapter. The access to at least one end of each such tunnel or trunkway, if used as a passage at sea, shall be through a trunk extending watertight to a height sufficient to permit access above the margin line. The access to the other end of the trunkway or tunnel may be through a watertight door of the type required by its location in the ship. Such trunkways or tunnels shall not extend through the first subdivision bulkhead abaft the collision bulkhead.

(ii) Where it is proposed to fit tunnels or trunkways for forced draught, piercing main transverse watertight bulkheads, these shall receive the special consideration of the Administration.

REGULATION 14

Openings in the shell plating below the margin line line

(a) The number of openings in the shell plating shall be reduced to the minimum compatible with the design and proper working of the ship.

(b) The arrangement and efficiency of the means for closing any opening in the shell plating shall be consistent with its intended purpose and the position in which it is fitted and generally to the satisfaction of the Administration.

(c) (i) If in a between decks, the sills of any sidescuttles are below a line drawn parallel to the bulkhead deck at side and having its lowest point 2½ per cent of the breadth of the ship above the deepest subdivision load line, all sidescuttles in that between deck shall be of the non-opening type.

(ii) All sidescuttles the sills of which are below the margin line, other than those required to be of a non-opening type by subparagraph (i) of this paragraph, shall be of such construction as will effectively prevent any person opening them without the consent of the master of the ship.

(iii) (1) Where in a between decks, the sills of any of the sidescuttles referred to in subparagraph (ii) of this paragraph are below a line drawn parallel to the bulkhead deck at side and having its lowest point 1,37 metres (4½ feet) plus 2½ per cent of the breadth of the ship above the water when the ship departs from any port, all the sidescuttles in that between

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

die patryspoorte in daardie tussendek waterdig toegemaak en gesluit word voordat die skip die hawe verlaat, en hulle mag nie oopgemaak word voordat die skip by die volgende hawe aankom nie. By die toepassing van hierdie subparagraaf kan die toepaslike speling vir soetwater, indien nodig, toegelaat word.

(2) Die tyd waarop hierdie patryspoorte in die hawe oopgemaak word, asook die tyd waarop hulle toegemaak en gesluit word voordat die skip die hawe verlaat, moet aangeteken word in sodanige register as wat die Administrasie voorskryf.

(3) Ten aansien van 'n skip waarvan een of meer patryspoorte so geleë is dat die voorskrifte van klousule (1) van hierdie subparagraaf van toepassing sou wees wanneer die skip op sy boonste indelingslaslyn sou lê, kan die Administrasie die hoogste gemiddelde diepgang aandui waarop die laagste punte van die openings van hierdie patryspoorte geleë sal wees bokant die lyn wat ewewydig getrek is aan die beskotdek op die skeepsboord en waarvan die laagste punt geleë sal wees 1,37 meter (4½ voet) plus 2½ persent van die breedte van die skip bo die waterlyn wat ooreenkom met die hoogste gemiddelde diepgang en waarop dit dus toelaatbaar sou wees om die hawe te verlaat sonder om hulle vooraf toe te maak en te sluit en om hulle op see op verantwoordelikheid van die gesagvoerder tydens die reis na die volgende hawe oop te maak. In tropiese sones, soos omskryf in die Internasionale Laslynkonvensie wat van krag is, kan hierdie hoogste diepgang met 0,305 meter (1 voet) vergroot word.

(d) Doeltreffende geskarnierde binneluike wat so ingerig is dat hulle maklik en doeltreffend toe- en waterdig gemaak kan word, moet aangebring word by alle patryspoorte, maar agter een agste van die skeepslengte vanaf die voorste loodlyn en bokant 'n lyn wat ewewydig getrek is met die beskotdek op die skeepsboord en waarvan die laagste punt 3,66 meter (12 voet) plus 2½ persent van die breedte van die skip bo die hoogste indelingslaslyn geleë is, kan die luike in die akkommodasie van ander passasiers as tussendekse passasiers verplaasbaar wees tensy die Internasionale Laslynkonvensie wat van krag is, bepaal dat die luike blywend op hul regte plekke bevestig moet wees. Sulke verplaasbare luike moet gebêre word in die onmiddellike nabyheid van die patryspoorte waarvoor hulle bedoel is.

(e) Patryspoorte en hul luike wat gedurende die vaart nie toeganklik sal wees nie, moet toegemaak en bevestig word voordat die skip die hawe verlaat.

(f) (i) Geen patryspoorte mag aangebring word in ruimtes wat uitsluitlik vir die vervoer van vrag of steenkool toegewys is nie.

(ii) Patryspoorte kan egter aangebring word in ruimtes wat vir die vervoer van vrag of passasiers toegewys is, maar hulle moet van sodanige konstruksie wees dat persone doeltreffend verhinder word om hulle of hul luike sonder die toestemming van die gesagvoerder van die skip oop te maak.

(iii) Indien vrag in sulke ruimtes vervoer word, moet die patryspoorte en hul luike waterdig toegemaak en gesluit word voordat die vrag gelaai word, en die feit dat hulle toegemaak en gesluit word, moet aangeteken word in sodanige register as wat die Administrasie voorskryf.

(g) Patryspoorte met outomatiese ventilasie mag nie sonder die spesiale magtiging van die Administrasie in die huidbeplating onder die indompelingsgrenslyn aangebring word nie.

decks shall be closed watertight and locked before the ship leaves port, and they shall not be opened before the ship arrives at the next port. In the application of this subparagraph the appropriate allowance for fresh water may be made when applicable.

(2) The time of opening such sidescuttles in port and of closing and locking them before the ship leaves port shall be entered in such log book as may be prescribed by the Administration.

(3) For any ship that has one or more sidescuttles so placed that the requirements of clause (1) of this sub-paragraph would apply when she was floating at her deepest subdivision load line, the Administration may indicate the limiting mean draught at which these sidescuttles will have their sills above the line drawn parallel to the bulkhead deck at side, and having its lowest point 1,37 metres (4½ feet) plus 2½ per cent of the breadth of the ship above the water-line corresponding to the limiting mean draught, and at which it will therefore be permissible to depart from port without previously closing and locking them and to open them at sea on the responsibility of the master during the voyage to the next port. In tropical zones as defined in the international Convention respecting Load Lines in force, this limiting draught may be increased by 0,305 metres (1 foot).

(d) Efficient hinged inside deadlights arranged so that they can be easily and effectively closed and secured watertight shall be fitted to all sidescuttles except that abaft one-eighth of the ship's length from the forward perpendicular and above a line drawn parallel to the bulkhead deck at side and having its lowest point at a height of 3,66 metres (12 feet) plus 2½ per cent of the breadth of the ship above the deepest subdivision load line, the deadlights may be portable in passenger accommodation other than that for steerage passengers, unless the deadlights are required by the International Convention respecting Load Lines in force to be permanently attached in their proper positions. Such portable deadlights shall be stowed adjacent to the sidescuttles they serve.

(e) Sidecuttles and their deadlights which will not be accessible during navigation, shall be closed and secured before the ship leaves port.

(f) (i) No sidescuttles shall be fitted in any spaces which are appropriated exclusively to the carriage of cargo or coal.

(ii) Sidescuttles may, however, be fitted in spaces appropriated alternatively to the carriage of cargo or passengers, but they shall be of such construction as will effectively prevent any person opening them or their deadlights without the consent of the master of the ship.

(iii) If cargo is carried in such spaces, the sidescuttles and their deadlights shall be closed watertight and locked before the cargo is shipped and such closing and locking shall be recorded in such log book as may be prescribed by the Administration.

(g) Automatic ventilating sidescuttles shall not be fitted in the shell plating below the margin line without the special sanction of the Administration.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(h) Die getal spuigate, sanitêre uitlate en ander soortgelyke openings in die huidbeplating moet tot 'n minimum verminder word òf deur elke uitlaat vir soveel sanitêre en ander pype as moontlik te gebruik òf op 'n ander bevredigende wyse.

(i) (i) Alle inlate en uitlate in die huidbeplating moet toegerus word moet doeltreffende en toeganklike middels om te verhoed dat water die skip per ongeluk binnekom. Lood of ander materiaal wat gevoelig is vir hitte, moet nie gebruik word vir pype wat buiteboords van huidkleppe in inlate of uitlate aangebring is nie, of vir 'n ander doel waar die verswakking van sulke pype in die geval van brand die gevaar van oorstroming kan laat ontstaan nie.

(ii) (1) Behalwe soos in subparagraaf (iii) van hierdie paragraaf bepaal, moet elke afsonderlike uitlaat wat vanaf ruimtes onder die indompelingsgrenslyn deur die huidbeplating loop, toegerus wees met òf een outomatiese terugslagklep met 'n positiewe middel om hom bo die beskotdek vandaan af te sluit, òf, in plaas daarvan, twee outomatiese terugslagkleppe wat nie so 'n middel het nie en waarvan die boonste een so bokant die boonste indelingslaslyn geleë is dat hy altyd vir ondersoek onder diensomstandighede toeganklik sal wees, en van 'n tipe is wat gewoonlik toe is.

(2) Wanneer 'n klep met 'n positiewe toemaakmiddel aangebring word, moet die bedienposisie bo die beskotdek altyd geredelik toeganklik wees en moet 'n middel aangebring word wat sal aandui of die klep oop of toe is.

(iii) Hoof- en hulpsee-inlate en uitlate in verband met masjinerie moet toegerus word met geredelike toeganklike krane of kleppe tussen die pype en huidbeplating of tussen die pype en gefabriseerde kaste wat aan die huidbeplating bevestig is.

(j) (i) Loopplank-, vrag- en steenkoolpoorte wat onder die indompelingsgrenslyn aangebring is, moet sterk genoeg wees. Hulle moet doeltreffend gesluit en waterdig gemaak word voordat die skip die hawe verlaat en moet gedurende die vaart gesluit bly.

(ii) Sulke poorte moet in geen omstandighede so aangebring word dat hulle laagste punt onderkant die boonste indelingslaslyn geleë sal wees nie.

(k) (i) Die binneboordse opening vir elke asstortkoker, vullisstortkoker, ensovoorts, moet met 'n doeltreffende deksel toegerus word.

(ii) Indien die binneboordse opening onder die indompelingsgrenslyn geleë is, moet die deksel waterdig wees en moet daar bowendien 'n outomatiese terugslagklep op 'n maklik toeganklike plek bo die boonste indelingslaslyn in die koker aangebring word. Wanneer die koker nie in gebruik is nie, moet sowel die deksel as die klep stewig toe gehou word.

REGULASIE 15

Konstruksie en eerste toetsing van waterdigte deure, patryspoorte, ens.

(a) (i) Die ontwerp, materiaal en konstruksie van alle waterdigte deure, patryspoorte, loopplank-, vrag- en steenkoolpoorte, kleppe, pype, as- en vullisstortkokers waarvan in hierdie Regulasies melding gemaak word moet die Administrasie tevrede stel.

(ii) Die rame van vertikale waterdigte deure mag geen groewe aan die onderkant hê waarin vullis kan versamel en verhoed dat die deur behoorlik toegaan nie.

(iii) Alle krane en kleppe vir see-inlate en uitlate onderkant die beskotdek, en alle inrigtings buiteboords van sulke krane en kleppe moet van staal, brons of

(h) The number of scuppers, sanitary discharges and other similar openings in the shell plating shall be reduced to the minimum either by making each discharge serve for as many as possible of the sanitary and other pipes, or in any other satisfactory manner.

(i) (i) All inlets and discharges in the shell plating shall be fitted with efficient and accessible arrangements for preventing the accidental admission of water into the ship. Lead or other heat sensitive materials shall not be used for pipes fitted outboard of shell valves in inlets or discharges, or any other application where the deterioration of such pipes in the event of fire would give rise to danger of flooding.

(ii) (1) Except as provided in subparagraph (iii) of this paragraph, each separate discharge led through the shell plating from spaces below the margin line shall be provided either with one automatic non-return valve fitted with a positive means of closing it from above the bulkhead deck, or, alternatively, with two automatic non-return valves without such means, the upper of which is so situated above the deepest subdivision load line as to be always accessible for examination under service conditions, and is of a type which is normally closed.

(2) Where a valve with positive means of closing is fitted, the operating position above the bulkhead deck shall always be readily accessible, and means shall be provided for indicating whether the valve is open or closed.

(iii) Main and auxiliary sea inlets and discharges in connection with machinery shall be fitted with readily accessible cocks or valves between the pipes and shell plating or between the pipes and fabricated boxes attached to the shell plating.

(j) (i) Gangway, cargo and coaling ports fitted below the margin line shall be of sufficient strength. They shall be effectively closed and secured watertight before the ship leaves port, and shall be kept closed during navigation.

(ii) Such ports shall be in no case fitted so as to have their lowest point below the deepest subdivision load line.

(k) (i) The inboard opening of each ash-shoot, rubbish-shoot, etc. shall be fitted with an efficient cover.

(ii) If the inboard opening is situated below the margin line, the cover shall be watertight, and in addition an automatic non-return valve shall be fitted in the shoot in an easily accessible position above the deepest subdivision load line. When the shoot is not in use both the cover and the valve shall be kept closed and secured.

REGULATION 15

Construction and initial tests of watertight doors, sidescuttles, etc.

(a) (i) The design, materials and construction of all watertight doors, sidescuttles, gangway, cargo and coaling ports, valves, pipes, ash-shoots and rubbish-shoots referred to in these Regulations shall be to the satisfaction of the Administration.

(ii) The frames of vertical watertight doors shall have no groove at the bottom in which dirt might lodge and prevent the door closing properly.

(iii) All cocks and valves for sea inlets and discharges below the bulkhead deck and all fittings outboard of

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

ander goedgekeurde rekbare materiaal vervaardig wees. Gewone gietyster of soortgelyke materiaal mag nie gebruik word nie.

(b) Elke waterdigte deur moet met 'n waterdrukhoogte tot by die beskotdek getoets word. Die toets moet uitgevoer word voordat die skip in diens geplaas word, òf voor òf na die deur aangebring is.

REGULASIE 16

Konstruksie en eerste toetsing van waterdigte dekke, kokers, ens.

(a) Waterdigte dekke, kokers, tonnels, kokerkiele en lugskagte moet net so sterk wees as waterdigte beskotte op ooreenkomstige hoogtes. Die middele wat gebruik word om hulle waterdig te maak en die inrigtings wat aangewend word om die openings daarin te sluit, moet die Administrasie tevrede stel. Waterdigte ventilators en kokers moet minstens tot by die beskotdek strek.

(b) Na voltooiing moet 'n spuitslang- of oorstromingstoets op waterdigte dekke en 'n spuitslangtoets op waterdigte kokers, tonnels en ventilators toegepas word.

REGULASIE 17

Waterdigtheid bo die indompelingsgrenslyn

(a) Die Administrasie kan eis dat alle redelike en prakties uitvoerbare maatreëls getref word om die binnekoms en verspreiding van water bo die beskotdek te beperk. Sodanige maatreëls kan gedeeltelike beskotte of webbe insluit. Wanneer gedeeltelike waterdigte beskotte en webbe op die beskotdek aangebring word, bo of in die onmiddellike nabyheid van hoofindelingsbeskotte, moet hulle toegerus word met waterdigte huid- en beskotdekverbindings sodat die stroming van water oor die dek beperk kan word wanneer die skip in 'n beskadigde slagsytoestand verkeer. Wanneer die gedeeltelike waterdigte beskot nie onmiddellik bo die beskot daaronder is nie, moet die beskotdek tussenin doeltreffend waterdig gemaak word.

(b) Die beskotdek of 'n dek wat daarbo geleë is, moet weerdig wees in die sin dat daar nie onder normale seetoestande water ondertoe sal binnekom nie. Alle openings in die vryliggende weerdek moet hoog en sterk genoeg luikhoofde hê en toegerus wees met doeltreffende middels om hulle vinnig weerdig toe te maak. Waterafvoerpoorte, oop relings en/of spuipype moet na gelang nodig aangebring word om in alle weersomstandighede water vinnig van die weerdek te verwyder.

(c) Patryspoorte, loopplank-, vrag- en steenkoolpoorte en ander middels vir die sluiting van openings in die skeepsboord bo die indompelingsgrenslyn moet van doeltreffende ontwerp en konstruksie en met inagneming van die ruimtes waarin hulle aangebring is en van hulle posisies in verhouding tot die boonste indelingslaslyn, sterk genoeg wees.

(d) Doeltreffende binneluike wat op so 'n wyse ingerig is dat hulle maklik en doeltreffend waterdig gesluit en bevestig kan word, moet verskaf word vir alle patryspoorte van ruimtes onder die eerste dek bo die beskotdek.

REGULASIE 18

Lenspompinrigtings in passasierskepe

(a) Elke skip moet toegerus word met 'n doeltreffende lenspompinstallasie wat in staat is om enige waterdigte afdeling wat nòg 'n permanente olie-afdeling nòg 'n permanente waterafdeling is, in alle omstandighede wat in die praktyk na 'n ongeval voorkom

such cocks and valves shall be made of steel, bronze or other approved ductile material. Ordinary cast iron or similar materials shall not be used.

(b) Each watertight door shall be tested by water pressure to a head up to the bulkhead deck. The test shall be made before the ship is put in service, either before or after the door is fitted.

REGULATION 16

Construction and initial tests of watertight decks, trunks, etc.

(a) Watertight decks, trunks, tunnels, duct keels and ventilators shall be of the same strength as watertight bulkheads at corresponding levels. The means used for making them watertight, and the arrangements adopted for closing openings in them, shall be to the satisfaction of the Administration. Watertight ventilators and trunks shall be carried at least up to the bulkhead deck.

(b) After completion, a hose or flooding test shall be applied to watertight decks and a hose test to watertight trunks, tunnels and ventilators.

REGULATION 17

Watertight integrity above the margin line

(a) The Administration may require that all reasonable and practicable measures shall be taken to limit the entry and spread of water above the bulkhead deck. Such measures may include partial bulkheads or webs. When partial watertight bulkheads and webs are fitted on the bulkhead deck, above or in the immediate vicinity of main subdivision bulkheads, they shall have watertight shell and bulkhead deck connections so as to restrict the flow of water along the deck when the ship is in heeled damaged condition. Where the partial watertight bulkhead does not line up with the bulkhead below, the bulkhead deck between shall be made effectively watertight.

(b) The bulkhead deck or a deck above it shall be weathertight in the sense that in ordinary sea conditions water will not penetrate in a downward direction. All openings in the exposed weather deck shall have coamings of ample height and strength and shall be provided with efficient means for expeditiously closing them weathertight. Freeing ports, open rails and/or scuppers shall be fitted as necessary for rapidly clearing the weather deck of water under all weather conditions.

(c) Sidescuttles, gangway, cargo and coaling ports and other means for closing openings in the shell plating above the margin line shall be of efficient design and construction and of sufficient strength having regard to the spaces in which they are fitted and their positions relative to the deepest subdivision load line.

(d) Efficient inside deadlights, arranged so that they can be easily and effectively closed and secured watertight, shall be provided for all sidescuttles to spaces below the first deck above the bulkhead deck.

REGULATION 18

Bilge pumping arrangements in passenger ships

(a) Ships shall be provided with an efficient bilge plant capable of pumping from and draining any watertight compartment which is neither a permanent oil compartment nor a permanent water compartment under all practicable conditions after a casualty whether the

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

en hetsy die skip regop lê of slagsy het, uit te pomp en te dreineer. Vir hierdie doel is suigleidings na die kante gewoonlik nodig, behalwe in nou afdelings aan die ente van die skip, waar een suigleiding voldoende kan wees. In afdelings van buitengewone vorm kan addisionele suigleidings vereis word. Maatreëls moet getref word sodat water in die afdeling sy weg na die suigpype kan vind. Wanneer die Administrasie met betrekking tot besondere afdelings daarvan oortuig is dat die voorsiening van dreinering onwenslik mag wees, kan hy toelaat dat daar sonder sodanige voorsiening klaargekom word indien berekenings gemaak ooreenkomstig die voorwaardes gestel in paragraaf (b) van Regulasie 7 van hierdie Hoofstuk toon dat die veiligheid van die skip nie daardeur benadeel sal word nie. Doeltreffende middele moet verskaf word om water uit geïsoleerde ruime te dreineer.

(b) (i) Skepe moet minstens drie kragpompe hê wat met die hooflensleiding verbind is en waarvan een met die aandryfinrigting verbind kan wees. Wanneer die kriteriumsyfer 30 of groter is, moet een addisionele onafhanklike kragpomp verskaf word.

(ii) Die vereistes word in onderstaande tabel opgesom:

Kriteriumsyfer	Kleiner as 30	30 en groter
Hoofmasjienpomp (kan vervang word deur een onafhanklike pomp).....	1	1
Onafhanklike pompe.....	2	3

(iii) Sanitêre, ballas- en algemene dienspompe kan aanvaar word as onafhanklike kraglenspompe mits hulle toegerus is met die nodige aansluitings by die lenspompstelsel.

(c) Wanneer dit prakties uitvoerbaar is, moet die kraglenspompe geplaas word in afsonderlike waterdigte afdelings wat so ingerig of geleë is dat hulle nie maklik as gevolg van dieselfde skade oorstroom sal word nie. Indien die masjiene en stoomketels in twee of meer waterdigte afdelings geplaas is, moet die pompe wat vir lensdiens beskikbaar is, sover moontlik onder hierdie afdelings verdeel word.

(d) Op skepe van 91,5 meter (300 voet) of langer of met 'n kriteriumsyfer van 30 of groter moet die reëlings sodanig wees dat daar minstens een kragpomp beskikbaar is vir gebruik in alle gewone omstandighede waarin 'n skip ter see oorstroom kan word. Daar sal aan hierdie vereiste voldoen wees indien—

(i) een van die vereiste pompe 'n noodpomp is van 'n betroubare onderdompelbare tipe met 'n kragbron wat bo die beskotdek geleë is; of

(ii) die pompe en hul kragbronne so oor die hele lengte van die skip versprei is dat daar in enige oorstromingstoestand wat die skip moet weerstaan, minstens een pomp in 'n onbeskadigde afdeling beskikbaar sal wees.

(e) Met uitsondering van addisionele pompe wat slegs vir piekafdelings aangebring kan word, moet elke vereiste lenspomp ingerig word om water te pomp uit enige ruimte wat ingevolge paragraaf (a) van hierdie Regulasie gedreineer moet word.

(f) (i) Elke kraglenspomp moet in staat wees om water teen 'n snelheid van minstens 122 meter (400 voet) per minuut deur die vereiste hooflensleiding te pomp. Onafhanklike kraglenspompe in masjinerieruimtes moet regstreekse suigleidings uit hierdie ruimtes hê, behalwe dat daar nie meer as twee sulke suigleidings in een ruimte vereis word nie. Wanneer twee of meer sulke suigleidings verskaf word, moet daar minstens een

ship is upright or listed. For this purpose wing suctions will generally be necessary except in narrow compartments at the ends of the ship, where one suction may be sufficent. In compartments of unusual form, additional suctions may be required. Arrangements shall be made whereby water in the compartment may find its way to the suction pipes. Where in relation to particular compartments the Administration is satisfied that the provision of drainage may be undesirable, it may allow such provision to be dispensed with if calculations made in accordance with the conditions laid down in paragraph (b) of Regulation 7 of this Chapter show that the safety of the ship will not be impaired. Efficient means shall be provided for draining water from insulated holds.

(b) (i) Ships shall have at least three power pumps connected to the bilge main, one of which may be attached to the propelling unit. Where the criterion numeral is 30 or more, one additional independent power pump shall be provided.

(ii) The requirements are summarized in the following table:

Criterion numeral	Less than 30	30 and over
Main engine pump (may be replaced by one independent pump).....	1	1
Independent pumps.....	2	3

(iii) Sanitary, ballast and general service pumps may be accepted as independent power bilge pumps if fitted with the necessary connections to the bilge pumping system.

(c) Where practicable, the power bilge pumps shall be placed in separate watertight compartments so arranged or situated that these compartments will not readily be flooded by the same damage. If the engines and boilers are in two or more watertight compartments, the pumps available for bilge service shall be distributed throughout these compartments as far as is possible.

(d) On ships 91,5 metres (300 feet) or more in length or having a criterion numeral of 30 or more, the arrangements shall be such that at least one power pump shall be available for use in all ordinary circumstances in which a ship may be flooded at sea. This requirement will be satisfied if—

(i) one of the required pumps is an emergency pump of a reliable submersible type having a source of power situated above the bulkhead deck; or

(ii) the pumps and their sources of power are so disposed throughout the length of the ship that under any condition of flooding which the ship is required to withstand, at least one pump in an undamaged compartment will be available.

(e) With the exception of additional pumps which may be provided for peak compartments only, each required bilge pump shall be arranged to draw water from any space required to be drained by paragraph (a) of this Regulation.

(f) (i) Each power bilge pump shall be capable of giving a speed of water through the required main bilge pipe of not less than 122 metres (400 feet) per minute. Independent power bilge pumps situated in machinery spaces shall have direct suctions from these spaces, except that not more than two such suctions shall be required in any one space. Where two or more such suctions are provided there shall be at least one on the

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

aan bakboord en een aan stuurboord wees. Die Administrasie kan eis dat onafhanklike kraglenspompe in ander ruimtes afsonderlike regstreekse suigleidings moet hê. Regstreekse suigleidings moet op geskikte wyse ingerig wees en dié in 'n masjinerieruimte moet 'n deursnee hê wat nie kleiner is as dié wat vir die hooflensleiding vereis word nie.

(ii) In steenkoolgestookte skepe moet daar, benewens die ander suigleidings wat by hierdie Regulasie vereis word, in die stookruim 'n buigbare suigslang verskaf word wat van geskikte deursnee en voldoende lengte is en in staat is om by die suigkant van 'n onafhanklike kragpomp aangesluit te word.

(g) (i) Benewens die regstreekse lenssuigleiding of -leidings wat by paragraaf (f) van hierdie Regulasie vereis word, moet daar in die masjinerieruimte vanaf die hoofsirkulasiepomp wat na die dreineervlak van die masjinerieruimte lei, 'n regstreekse suigleiding met 'n terugslagklep wees. Die deursnee van hierdie regstreekse suigpyp moet minstens twee derdes wees van dié van die pompinlaat in die geval van stoomskepe, en in die geval van motorskepe moet die deursnee dieselfde wees as dié van die pompinlaat.

(ii) Wanneer die hoofsirkulasiepomp na die mening van die Administrasie nie vir hierdie doel geskik is nie, moet 'n regstreekse noodlenssuigleiding aangebring word vanaf die grootste beskikbare onafhanklike kragaangedrewe pomp na die dreineervlak van die masjinerieruimte; die suigleiding se deursnee moet dieselfde wees as dié van die hoofinlaat van die pomp wat gebruik word. Die vermoë van die pomp wat aldus aangesluit word, moet dié van 'n vereiste lenspomp oorskry met 'n hoeveelheid wat die Administrasie tevrede stel.

(iii) Die stange van die see-inlaat- en regstreekse suigkleppe moet voldoende bokant die platform van die masjienkamer reik.

(iv) Wanneer die brandstof steenkool is of kan wees en daar nie 'n waterdigte beskot tussen die masjiene en die ketels is nie, moet 'n regstreekse uitlaat na buiteboord of, in plaas daarvan, 'n omloopleiding na die sirkulasiepomp-uitlaatleiding aangebring word vanaf enige sirkulasiepomp wat ooreenkomstig subparagraaf (i) van hierdie paragraaf gebruik word.

(h) (i) Alle pype vanaf die pompe wat vir die dreinering van vrag- of masjinerieruimtes nodig is, moet geheel en al afsonderlik wees van die pype wat gebruik kan word vir die vulling of lediging van ruimtes waarin water of olie vervoer word.

(ii) Alle lenspype wat gebruik word in of onder steenkoolbunkers of brandstofbewaartenks of in ketel- of masjinerieruimtes, met inbegrip van ruimtes waarin oliebesinktenks of oliebrandstofpompeenhede geleë is, moet van staal of ander goedgekeurde materiaal wees.

(i) Die deursnee van die hooflensleiding moet ooreenkomstig onderstaande formules bereken word; met dien verstande dat die werklike binnedeursnee van die hooflensleiding van die naaste standaardgrootte kan wees wat vir die Administrasie aanneemlik is:

$$d=1,68\sqrt{L(B+D)}+25$$

waar—

d = binnedeursnee van die hooflensleiding in millimeter

L = lengte van skip in meter

B = breedte van skip in meter

D = holte van skip tot by die beskotdek, in meter;

of

$$d=\sqrt{\frac{L(B+D)}{2\,500}}+1$$

port side and one on the starboard side. The Administration may require independent power bilge pumps situated in other spaces to have separate direct suctions. Direct suctions shall be suitably arranged and those in a machinery space shall be of a diameter not less than that required for the bilge main.

(ii) In coal-burning ships there shall be provided in the stokehold, in addition to the other suctions required by this Regulation, a flexible suction hose of suitable diameter and sufficient length, capable of being connected to the suction side of an independent power pump.

(g) (i) In addition to the direct bilge suction or suctions required by paragraph (f) of this Regulation there shall be in the machinery space a direct suction from the main circulating pump leading to the drainage level of the machinery space and fitted with a non-return valve. The diameter of this direct suction pipe shall be at least two-thirds of the diameter of the pump inlet in the case of steamships, and of the same diameter as the pump inlet in the case of motorships.

(ii) Where in the opinion of the Administration the main circulating pump is not suitable for this purpose, a direct emergency bilge suction shall be led from the largest available independent power driven pump to the drainage level of the machinery space; the suction shall be of the same diameter as the main inlet of the pump used. The capacity of the pump so connected shall exceed that of a required bilge pump by an amount satisfactory to the Administration.

(iii) The spindles of the sea inlet and direct suction valves shall extend well above the engine room platform.

(iv) Where the fuel is, or may be, coal and there is no watertight bulkhead between the engines and the boilers, a direct discharge overboard or alternatively a by-pass to the circulating pump discharge, shall be fitted from any circulating pump used in compliance with subparagraph (i) of this paragraph.

(h) (i) All pipes from the pumps which are required for draining cargo or machinery spaces shall be entirely distinct from pipes which may be used for filling or emptying spaces where water or oil is carried.

(ii) All bilge pipes used in or under coal bunkers or fuel storage tanks or in boiler or machinery spaces, including spaces in which oil-settling tanks or oil fuel pumping units are situated, shall be of steel or other approved material.

(i) The diameter of the bilge main shall be calculated according to the following formulae provided that the actual internal diameter of the bilge main may be of the nearest standard size acceptable to the Administration:

$$d=1,68\sqrt{L(B+D)}+25$$

where—

d = internal diameter of the bilge main in millimetres;

L and B are the length and the breadth of the ship in metres, as defined in Regulation 2 of this Chapter; and

D = moulded depth of the ship to bulkhead deck in metres; or

$$d=\sqrt{\frac{L(B+D)}{2\,500}}+1$$

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

waar—

d = binnedeursnee van die hooflensleiding in duim
L = lengte van skip in voet
B = breedte van skip in voet.
D = holte van skip tot by die beskotdek, in voet.

Die deursnee van die newelensleidings moet vasgestel word by reëls wat deur die Administrasie gestel moet word.

(j) Die inrigting van die lens- en ballaspompstelsel moet sodanig wees dat dit sal verhoed dat water vanaf die see en vanaf waterballasruimtes die vrag- en masjinerieruimtes binnekom of uit die een afdeling na die ander sal stroom. Spesiale voorsiening moet gemaak word om te verhoed dat 'n dieptenk met lens- en ballasverbindings per ongeluk water uit die see inkry wanneer hy vrag bevat, of deur 'n lenspyp leeggepomp word wanneer hy waterballas bevat.

(k) Maatreëls moet getref word om te voorkom dat 'n afdeling wat deur 'n lenssuigpyp bedien word, oorstroom word indien die pyp in 'n ander afdeling afbreek of op 'n ander wyse beskadig word deurdat daar 'n botsing is of die skip hom op die grond vasloop. Wanneer die pyp op enige plek nader aan die skeepsboord as een vyfde van die breedte van die skip (reghoekig gemeet met die middellyn op die hoogte van die boonste indelingslaslyn) of in 'n kokerkiel geleë is, moet daar vir hierdie doel in die afdeling wat die oop end bevat, 'n terugslagklep in die pyp aangebring word.

(l) Alle verdeelkaste, krane en kleppe wat met die lenspompinrigting in verband staan, moet op plekke wees wat te alle tye onder gewone omstandighede toeganklik is. Hulle moet so ingerig wees dat in die geval van oorstroming een van die lenspompe op enige afdeling kan werk; daarbenewens moet beskadiging van die pomp of die aansluiting van die pomp by die hooflensleiding een vyfde van die skip se breedte van die buiteboord af, nie die lensstelsel buite werking stel nie. Indien daar slegs een pypleidingstelsel deur al die pompe bedien word, moet die nodige krane of kleppe vir die beheer van die lenssuigleidings van bo die beskotdek bedien kan word. Indien daar benewens die hooflenspompstelsel 'n noodlenspompstelsel verskaf word, moet dié onafhanklik van die hoofstelsel en so ingerig wees dat 'n pomp in die geval van oorstroming op enige afdeling kan werk; in daardie geval hoef net die krane en kleppe wat vir die bediening van die noodlensstelsel nodig is, van bo die beskotdek bedien te kan word.

(m) Die beheermiddels van alle krane en kleppe waarvan in paragraaf (1) van hierdie Regulasie melding gemaak word en wat bo die beskotdek vandaar bedien kan word, moet op die plek van bediening duidelik gemerk word en toegerus word met middels om te toon of hulle oop of toe is.

REGULASIE 19

*Stabiliteitsgegewens vir passasierskepe en vragskepe**

(a) Elke passasierskip en vragskip moet na voltooiing aan 'n hellingtoets onderwerp en sy stabiliteitselemente bepaal word. Die gesagvoerder moet voorsien word van sodanige betroubare gegewens as wat nodig is om hom in staat te stel om deur vinnige en eenvoudige

* Hier word verwys na die Recommendation on Intact Stability for Passenger and Cargo Ships under 100 metres in length, aanvaar deur die Organisasie by Resolusie A.167 (ES.IV) en wysigings tot hierdie Aanbevelings, aanvaar deur die Organisasie by Resolusie A.206 (VII).

where—

d = internal diameter of the bilge main in inches;
L and B are the length and the breadth of the ship in feet, as defined in Regulation 2 of this Chapter; and
D = moulded depth of the ship to bulkhead deck in feet.

The diameter of the bilge branch pipes shall be determined by rules to be made by the Administration.

(j) The arrangement of the bilge and ballast pumping system shall be such as to prevent the possibility of water passing from the sea and from water ballast spaces into the cargo and machinery spaces, or from one compartment to another. Special provision shall be made to prevent any deep tank having bilge and ballast connections being inadvertently run up from the sea when containing cargo, or pumped out through a bilge pipe when containing water ballast.

(k) Provision shall be made to prevent the compartment served by any bilge suction pipe being flooded in the event of the pipe being severed, or otherwise damaged by collision or grounding in any other compartment. For this purpose, where the pipe is at any part situated nearer the side of the ship than one-fifth the breadth of the ship (measured at right angles to the centre line at the level of the deepest subdivision load line), or in a duct keel, a non-return valve shall be fitted to the pipe in the compartment containing the open end.

(l) All the distribution boxes, cocks and valves in connection with the bilge pumping arrangements shall be in positions which are accessible at all times under ordinary circumstances. They shall be so arranged that, in the event of flooding, one of the bilge pumps may be operative on any compartment; in addition, damage to a pump or its pipe connecting to the bilge main outboard of a line drawn at one-fifth of the breadth of the ship shall not put the bilge system out of action. If there is only one system of pipes common to all the pumps, the necessary cocks or valves for controlling the bilge suctions must be capable of being operated from above the bulkhead deck. Where in addition to the main bilge pumping system an emergency bilge pumping system is provided, it shall be independent of the main system and so arranged that a pump is capable of operating on any compartment under flooding conditions; in that case only the cocks and valves necessary for the operation of the emergency system need be capable of being operated from above the bulkhead deck.

(m) All cocks and valves mentioned in paragraph (l) of this Regulation which can be operated from above the bulkhead deck shall have their controls at their place of operation clearly marked and provided with means to indicate whether they are open or closed.

REGULATION 19

*Stability information for passenger ships and cargo ships**

(a) Every passenger ship and cargo ship shall be inclined upon its completion and the elements of its stability determined. The master shall be supplied with such reliable information as is necessary to enable him by rapid and simple processes to obtain accurate

* Reference is made to the Recommendation on Intact Stability for Passenger and Cargo Ships under 100 metres in length, adopted by the Organization by Resolution A.167 (ES.IV) and Amendments to this Recommendation, adopted by the Organization by Resolution A.206 (VII).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

prosesse akkurate aanduiding te kry van die stabiliteit van die skip onder wisselende dienstoestande, en 'n afskrif moet aan die Administrasie verskaf word.

(b) Wanneer aan die skip veranderings aangebring word wat die stabiliteitsgegewens verstrek aan die gesagvoerder in 'n belangrike mate raak, moet gewysigde stabiliteitsgegewens verstrek word. Indien nodig moet die skip weer aan 'n hellingtoets onderwerp word.

(c) Die Administrasie kan toelaat dat van die hellingtoets van 'n individuele skip afgesien word mits basiese stabiliteitsgegewens aan die hand van die hellingtoets van 'n susterskip beskikbaar is en tot tevredenheid van die Administrasie getoon word dat betroubare stabiliteitsgegewens vir die vrygestelde skip uit sulke basiese gegewens verkry kan word.

(d) Die Administrasie kan ook toelaat dat van die hellingtoets van 'n individuele skip of klas skepe wat veral ontwerp is om vloeistowwe of erts los te vervoer, afgesien word indien bestaande gegewens vir dergelike skepe duidelik toon dat daar weens die skip se afmetings en inrigtings meer as genoeg metasentriese hoogte in alle moontlike laaitoestande beskikbaar sal wees.

REGULASIE 20

Planne vir beheer in gevalle van beskadiging

Planne wat vir elke dek en ruim duidelik die grense van waterdigte afdelings, die openings daarin en die sluitingsmiddels en die posisie van enige beheermiddels daarvan, asook die inrigtings vir die herstel van enige slagsy as gevolg van oorstroming duidelik toon, moet blywend vir die leiding van die offisier in bevel van die skip vertoon word. Daarbenewens moet boekies met bogenoemde gegewens aan die offisiere van die skip beskikbaar gestel word.

REGULASIE 21

Die merk, periodieke bediening en inspeksie van waterdigte deure, ens.

(a) Hierdie Regulasie is van toepassing op nuwe en bestaande skepe.

(b) Driloefeninge vir die bediening van waterdigte deure, patryspoorte, kleppe en sluitingsinrigtings van spuipype, as- en vullisstortkokers moet weekliks plaasvind. Op skepe waarvan die reis langer as 'n week duur, moet 'n volledige oefening gehou word voordat die skip die hawe verlaat en ander oefeninge moet daarna minstens een keer per week gedurende die reis plaasvind. Alle waterdigte kragdeure en skarnierdeure in hoofdwarsbeskotte wat op see gebruik word, moet in alle skepe daagliks in werking gebring word.

(c) (i) Die waterdigte deure en alle meganismes en standaanwysers wat daarmee in verband staan, alle kleppe waarvan die sluiting nodig is om 'n afdeling waterdig te maak en alle kleppe waarvan die werking nodig is vir die beheer van dwarsverbindings in gevalle van beskadiging, moet periodiek minstens een keer per week op see nagesien word.

(ii) Sulke kleppe, deure en meganismes moet op geskikte wyse gemerk word ten einde te verseker dat hulle behoorlik gebruik word om die maksimum veiligheid te verskaf.

guidance as to the stability of the ship under varying conditions of service, and a copy shall be furnished to the Administration.

(b) Where any alterations are made to a ship so as to materially affect the stability information supplied to the master, amended stability information shall be provided. If necessary the ship shall be re-inclined.

(c) The Administration may allow the inclining test of an individual ship to be dispensed with provided basic stability data are available from the inclining test of a sister ship and it is shown to the satisfaction of the Administration that reliable stability information for the exempted ship can be obtained from such basic data.

(d) The Administration may also allow the inclining test of an individual ship or class of ships, especially designed for the carriage of liquids or ore in bulk, to be dispensed with when reference to existing data for similar ships clearly indicates that due to the ship's proportions and arrangements more than sufficient metacentric height will be available in all probable loading conditions.

REGULATION 20

Damage control plans

There shall be permanently exhibited, for the guidance of the officer in charge of the ship, plans showing clearly for each deck and hold the boundaries of the watertight compartments, the openings therein with the means of closure and position of any controls thereof, and the arrangements for the correction of any list due to flooding. In addition, booklets containing the aforementioned information shall be made available to the officers of the ship.

REGULATION 21

Marking, periodical operation and inspection of watertight doors, etc.

(a) This Regulation applies to new and existing ships.

(b) Drills for the operating of watertight doors, sidescuttles, valves and closing mechanisms of scuppers, ash-shoots and rubbish-shoots shall take place weekly. In ships in which the voyage exceeds one week in duration a complete drill shall be held before leaving port, and others thereafter at least once a week during the voyage. In all ships all watertight power doors and hinged doors, in main transverse bulkheads, in use at sea, shall be operated daily.

(c) (i) The watertight doors and all mechanisms and indicators connected therewith, all valves the closing of which is necessary to make a compartment watertight, and all valves the operation of which is necessary for damage control cross connections shall be periodically inspected at sea at least once a week.

(ii) Such valves, doors and mechanisms shall be suitably marked to ensure that they may be properly used to provide maximum safety.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 22

Inskrywings in register

(a) Hierdie Regulasie is van toepassing op nuwe en bestaande skepe.

(b) Skarnierdeure, verplaasbare plate, patryspoorte, loopplank-, vrag- en steenkoolpoorte en ander openings wat ingevolge hierdie Regulasies gedurende die vaart toegehou moet word, moet toegemaak word voordat die skip die hawe verlaat. Die tyd van toemaak en die tyd van oopmaak (indien dit kragtens hierdie Regulasies toelaatbaar is), moet opgeteken word in sodanige register as wat die Administrasie voorskryf.

(c) Alle driloefeninge en inspeksies wat by Regulasie 21 van hierdie Hoofstuk vereis word, moet in die register opgeteken word met duidelike vermelding van enige gebreke wat aan die lig gekom het.

DEEL C—MASJINERIE EN ELEKTRIESE INSTALLASIES*

(Deel C is van toepassing op passasierskepe en vragskepe)

REGULASIE 23

Algemeen

(a) Elektriese installasies op passasierskepe moet sodanig wees dat—

(i) dienste wat vir die veiligheid noodsaaklik is, in verskillende noodtoestande in stand gehou sal word; en

(ii) die veiligheid van passasiers, bemanning en skip teen die gevare van elektrisiteit verseker sal wees.

(b) Vragskepe moet aan die bepalings van Regulasies 26, 27, 28, 29, 30 en 32 van hierdie Hoofstuk voldoen.

REGULASIE 24

Hoofbron van elektriese krag in passasierskepe

(a) Elke passasierskip waarvan die elektriese krag die enigste middel is tot instandhouding van die hulpdienste wat onontbeerlik is vir die aandrywing en die veiligheid van die skip, moet toegerus wees met minstens twee hoofopwekstelle. Die krag van hierdie stelle moet sodanig wees dat wanneer een van hierdie opwekstelle buite werking is, dit nog steeds moontlik sal wees om die funksionering te verseker van die dienste waarvan in subparagraaf (a) (i) van Regulasie 23 van hierdie Hoofstuk melding gemaak word.

(b) In 'n passasierskip waar daar slegs een hoofopwekstasie is, moet die hoofskakelbord in dieselfde hoofbrandsone geleë wees. Wanneer daar meer as een hoofopwekstasie is, is dit toelaatbaar om slegs een hoofskakelbord te hê.

REGULASIE 25

Noodbron van elektriese krag in passasierskepe

(a) Daar moet bo die beskotdek en buitekant die masjineriekaste 'n selfstandige noodbron van elektriese krag wees. Die posisie daarvan in verhouding tot die hoofbron of -bronne van elektriese krag moet sodanig wees dat daar tot tevredenheid van die Administrasie verseker word dat 'n brand of ander ongeval in die masjinerieruimte soos in paragraaf (h) van Regulasie

* Hier word verwys na die Recommendations on Safety Measures for Periodically Unattended Machinery Spaces of Cargo Ships, aanvullend tot dié wat normaalweg as noodsaaklik beskou word vir bediende masjinerieruimte, soos aanvaar deur die Organisasie by Resolusie A.211 (VII).

REGULATION 22

Entries in log

(a) This Regulation applies to new and existing ships.

(b) Hinged doors, portable plates, sidescuttles, gangway, cargo and coaling ports and other openings, which are required by these Regulations to be kept closed during navigation, shall be closed before the ship leaves port. The time of closing and the time of opening (if permissible under these Regulations) shall be recorded in such log book as may be prescribed by the Administration.

(c) A record of all drills and inspections required by Regulation 21 of this Chapter shall be entered in the log book with an explicit record of any defects which may be disclosed.

PART C—MACHINERY AND ELECTRICAL INSTALLATIONS*

(Part C applies to passenger ships and cargo ships)

REGULATION 23

General

(a) Electrical installations in passenger ships shall be such that—

(i) services essential for safety will be maintained under various emergency conditions; and

(ii) the safety of passengers, crew and ship from electrical hazards will be assured.

(b) Cargo ships shall comply with Regulations 26, 27, 28, 29, 30 and 32 of this Chapter.

REGULATION 24

Main source of electrical power in passenger ships

(a) Every passenger ship, the electrical power of which constitutes the only means of maintaining the auxiliary services indispensable for the propulsion and the safety of the ship, shall be provided with at least two main generating sets. The power of these sets shall be such that it shall still be possible to ensure the functioning of the services referred to in sub-paragraph (a) (i) of Regulation 23 of this Chapter in the event of any one of these generating sets being stopped.

(b) In a passenger ship where there is only one main generating station, the main switchboard shall be located in the same main fire zone. Where there is more than one main generating station, it is permissible to have only one main switchboard.

REGULATION 25

Emergency source of electrical power in passenger ships

(a) There shall be above the bulkhead deck and outside the machinery casings a self-contained emergency source of electrical power. Its location in relation to the main source or sources of electrical power shall be such as to ensure to the satisfaction of the Administration that a fire or other casualty to the machinery space as defined in paragraph (h) of Regulation 2 of

* Reference is made to the Recommendation on Safety Measures for Periodically Unattended Machinery Spaces of Cargo Ships additional to those normally considered necessary for an Attended Machinery Space, adopted by the Organization by Resolution A.211 (VII).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

2 van hierdie Hoofstuk omskryf, nie die voorsiening of verspreiding van noodkrag sal belemmer nie. Hy mag nie voor die aanvaringsbeskot geleë wees nie.

(b) Die beskikbare krag moet voldoende wees om, met behoorlike inagneming van sulke dienste as wat moontlik gelyktydig verskaf moet word, al daardie dienste te voorsien wat na die mening van die Administrasie in 'n noodgeval vir die veiligheid van die passasiers en die bemanning nodig is. Spesiale oorweging moet geskenk word aan noodverligting by elke bootpos op die dek en aan die buiteboorde, in alle deurgange, op trappe en by uitgange, in die masjinerieruimtes en in die beheerstasies soos in paragraaf (r) van Regulasie 3 van Hoofstuk II-2 omskryf, aan die sproeierpomp, aan die navigasieligte, en aan die dagligseinlamp indien dit vanaf die hoofkragbron bedien word. Die krag moet voldoende wees vir 'n tydperk van 36 uur, maar in die geval van skepe wat gereeld op reise van korte duur gebruik word, kan die Administrasie 'n kleiner kragvoorraad aanvaar indien hy daarvan oortuig is dat dieselfde standaard van veiligheid bereik sal word.

(c) Die noodkragbron kan een van die volgende wees:

(i) 'n Generator aangedryf deur 'n geskikte primêre kragbron met 'n onafhanklike brandstoftoevoer en met goedgekeurde aansitinrigtings; die brandstof wat gebruik word, moet 'n ontvlammingspunt hê van minstens 43 °C (110 °F); of

(ii) 'n akkumulator wat in staat is om die noodlading te dra sonder dat hy weer gelaai hoef te word of dat daar 'n oormatige verlaging van die stroomspanning plaasvind.

(d) (i) Wanneer die noodkragbron 'n generator is, moet 'n tydelike noodkragbron voorsien word wat uit 'n akkumulatorbattery bestaan met 'n voldoende vermoë—

(1) om noodverligting onafgebroke 'n halfuur lank te verskaf;

(2) om die waterdigte deure (indien hulle elektries bedien word) toe te maak, maar nie noodwendig om hulle almal gelyktydig toe te maak nie;

(3) om die aanwysers (indien hulle met elektrisiteit werk) te bedien wat aantoon of die kragaangedrewe waterdigte deure, oop of toe is; en

(4) om die geluidseine (indien hulle met elektrisiteit werk) te bedien wat waarskuwing gee dat kragaangedrewe waterdigte deure besig is om toe te gaan.

Die reëlings moet sodanig wees dat die tydelike noodkragbron outomaties in werking kom as die hoofelektrisiteitsbron onklaar raak.

(ii) Wanneer die noodkragbron 'n akkumulatorbattery is, moet daar reëlings getref word om te verseker dat die noodverligtingsbron outomaties in werking kom wanneer die hoofligbron onklaar raak.

(e) 'n Aanwyser moet in die masjinerieruimte, by voorkeur aan die hoofskakelbord, aangebring word om aan te dui wanneer 'n akkumulatorbattery wat ooreenkomstig hierdie Regulasie aangebring is, besig is om af te loop.

(f) (i) Die noodskakelbord moet geïnstalleer word so na aan die noodkragbron as wat prakties uitvoerbaar is.

(ii) Wanneer die noodkragbron 'n generator is, moet die noodskakelbord in dieselfde ruimte as die noodkragbron geleë wees, tensy die bediening van die noodskakelbord daardeur belemmer sal word.

this Chapter will not interfere with the supply or distribution of emergency power. It shall not be forward of the collision bulkhead.

(b) The power available shall be sufficient to supply all those services that are, in the opinion of the Administration, necessary for the safety of the passengers and the crew in an emergency, due regard being paid to such services as may have to be operated simultaneously. Special consideration shall be given to emergency lighting at every boat station on deck and oversides, in all alleyways stairways and exits, in the machinery spaces and in the control stations as defined in paragraph (r) of Regulation 3 of Chapter II-2, to the sprinkler pump to navigation lights, and to the daylight signalling lamp if operated from the main source of power. The power shall be adequate for a period of 36 hours, except that, in the case of ships engaged regularly on voyages of short duration, the Administration may accept a lesser supply if satisfied that the same standard of safety would be attained.

(c) The emergency source of power may be either—

(i) a generator driven by a suitable prime-mover with an independent fuel supply and with approved starting arrangements; the fuel used shall have a flashpoint of not less than 43 °C (110 °F); or

(ii) an accumulator (storage) battery capable of carrying the emergency load without recharging or excessive voltage drop.

(d) (i) Where the emergency source of power is a generator there shall be provided a temporary source of emergency power consisting of an accumulator battery of sufficient capacity—

(1) to supply emergency lighting continuously for half an hour;

(2) to close the watertight doors (if electrically operated) but not necessarily to close them all simultaneously;

(3) to operate the indicators (if electrically operated) which show whether power-operated watertight doors are open or closed; and

(4) to operate the sound signals (if electrically operated) which give warning that power-operated watertight doors are about to close.

The arrangements shall be such that the temporary source of emergency power will come into operation automatically in the event of failure of the main electrical supply.

(ii) Where the emergency source of power is an accumulator battery, arrangements shall be made to ensure that emergency lighting will automatically come into operation in the event of failure of the main lighting supply.

(e) An indicator shall be mounted in the machinery space, preferably on the main switchboard, to indicate when any accumulator battery fitted in accordance with this Regulation is being discharged.

(f) (i) The emergency switchboard shall be installed as near as is practicable to the emergency source of power.

(ii) Where the emergency source of power is a generator, the emergency switchboard shall be located in the same space as the emergency source of power, unless the operation of the emergency switchboard would thereby be impaired.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(iii) Geen akkumulatorbattery wat ooreenkomstig hierdie regulasie aangebring word, mag in dieselfde ruimte as die noodskakelbord geïnstalleer word nie.

(iv) Die Administrasie kan toelaat dat die noodskakelbord vanaf die hoofskakelbord in normale diens gevoed word.

(g) Die reëlings moet sodanig wees dat die volledige noodinstallasie sal funksioneer wanneer die skip 'n helling van 22½ grade het en/of wanneer die trim van die skip 10 grade is.

(h) Voorsiening moet gemaak word vir die periodieke toetsing van die noodkragbron en die tydelike kragbron indien voorsien, en dit moet die toetsing van outomatiese inrigtings insluit.

REGULASIE 26

Noodbron van elektriese krag in vragskepe

(a) *Vragskepe van* 5 000 *ton bruto tonnemaat en meer.*

(i) In vragskepe van 5 000 ton bruto tonnemaat en meer, moet daar 'n selfstandige noodkragbron wees, en dié moet tot tevredenheid van die Administrasie bo die boonste deurlopende dek en buitekant die masjineriekaste geleë wees ten einde te verseker dat dit sal funksioneer in die geval van brand of 'n ander ongeval wat veroorsaak dat die hoofelektrisiteitsinstallasie onklaar raak.

(ii) Die beskikbare krag moet voldoende wees om al dié dienste te voorsien wat, na die mening van die Administrasie, in 'n noodgeval vir die veiligheid van almal aan boord nodig is, en daar moet rekening gehou word met dienste wat moontlik gelyktydig moet funksioneer. Spesiale oorweging moet geskenk word aan—

(1) noodverligting by elke bootpos op die dek en aan die buiteboorde, in alle deurgange, op trappe en by uitgange, in die hoofmasjinerieruimte en hoofopwekstelruimte, op die navigasiebrug en in die kaartkamer;

(2) die algemene alarm; en

(3) navigasieligte, indien uitsluitlik elektries, en die dagligseinlamp indien deur die hoofelektrisiteitsbron bedien.

Die krag moet voldoende wees vir 'n tydperk van ses uur.

(iii) Die noodkragbron kan een van die volgende wees:

(1) 'n Akkumulator wat in staat is om die noodlading te dra sonder dat hy weer gelaai hoef te word of dat daar 'n oormatige verlaging van die stroomspanning plaasvind; of

(2) 'n generator aangedryf deur 'n geskikte primêre kragbron met 'n onafhanklike brandstoftoevoer en met aansitinrigtings wat die Administrasie tevrede stel; die brandstof wat gebruik word, moet 'n ontvlammingspunt hê van minstens 43 °C (110 °F).

(iv) Die reëlings moet sodanig wees dat die volledige noodinstallasie sal funksioneer wanneer die skip 'n helling van 22½ grade het en/of wanneer die trim van die skip 10 grade is.

(v) Voorsiening moet gemaak word vir die periodieke toetsing van die volledige noodinstallasie.

(b) *Vragskepe van minder as* 5 000 *ton bruto tonnemaat.*

(iii) No accumulator battery fitted in accordance with this Regulation shall be installed in the same space as the emergency switchboard.

(iv) The Administration may permit the emergency switchboard to be supplied from the main switchboard in normal operation.

(g) Arrangements shall be such that the complete emergency installation will function when the ship is inclined 22½ degrees and/or when the trim of the ship is 10 degrees.

(h) Provision shall be made for the periodic testing of the emergency source of power and the temporary source of power, if provided, which shall include the testing of automatic arrangements.

REGULATION 26

Emergency source of electrical power in cargo ships

(a) *Cargo ships of* 5 000 *tons gross tonnage and upwards.*

(i) In cargo ships of 5 000 tons gross tonnage and upwards there shall be a self-contained emergency source of power, located to the satisfaction of the Administration above the uppermost continuous deck and outside the machinery casings, to ensure its functioning in the event of fire or other casualty causing failure to the main electrical installation.

(ii) The power available shall be sufficient to supply all those services which are, in the opinion of the Administration, necessary for the safety of all on board in an emergency, due regard being paid to such services as may have to be operated simultaneously. Special consideration shall be given to—

(1) emergency lighting at every boat station on deck and oversides, in all alleyways, stairways and exits, in the main machinery space and main generating set space, on the navigating bridge and in the chartroom;

(2) the general alarm; and

(3) navigation lights if solely electric, and the daylight signalling lamp if operated by the main source of electrical power.

The power shall be adequate for a period of six hours.

(iii) The emergency source of power may be either—

(1) an accumulator (storage) battery capable of carrying the emergency load without recharging or excessive voltage drop; or

(2) a generator driven by a suitable prime-mover with an independent fuel supply and with starting arrangements to the satisfaction of the Administration. The fuel used shall have a flashpoint of not less than 43 °C (110 °F).

(iv) Arrangements shall be such that the complete emergency installation will function when the ship is inclined 22½ degrees and/or when the trim of the ship is 10 degrees.

(v) Provision shall be made for the periodic testing of the complete emergency installation.

(b) *Cargo ships of less than* 5 000 *tons gross tonnage.*

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(i) In vragskepe van minder as 5 000 ton bruto tonnemaat, moet daar 'n selfstandige noodkragbron wees en dié moet tot tevredenheid van die Administrasie geleë en in staat wees om by die tewaterlatingspunte en stuwingsposisies van reddingsvaartuie die lig te verskaf wat in subparagrawe (a) (ii), (b) (ii), en (b) (iii) van Regulasie 19 van Hoofstuk III voorgeskryf word, en daarbenewens moet daar sulke ander dienste wees as wat die Administrasie met behoorlike inagneming van Regulasie 38 van Hoofstuk III bepaal.

(ii) Die beskikbare krag moet voldoende wees vir 'n tydperk van minstens drie uur.

(iii) Hierdie skepe is ook onderworpe aan subparagrawe (iii), (iv) en (v) van paragraaf (a) van hierdie Regulasie.

REGULASIE 27

Voorsorgmaatreëls teen skok, brand en ander gevare van elektriese oorsprong

(a) *Passasierskepe en vragskepe.*

(i) (1) Alle blootgestelde metaaldele van elektriese masjiene of uitrusting wat nie bedoel is om onder stroom te wees nie maar onder stroom kan kom as gevolg van 'n fout, moet geaard word; voorts moet alle elektriese apparate so gebou en so geïnstalleer word dat daar by die gewone hantering geen gevaar van besering sal wees nie.

(2) Metaalrame van alle draagbare elektriese lampe, gereedskap en soortgelyke apparate wat as skeepsuitrusting voorsien word en 'n hoër taksasie het as die veiligheidspanning wat deur die Administrasie voorgeskryf moet word, moet deur middel van 'n geskikte geleier geaard word, tensy gelykstaande voorsienings gemaak word soos deur dubbele isolering of deur 'n afsondertransformator. Die Administrasie kan addisionele spesiale voorsorgmaatreëls vereis vir elektriese lampe, gereedskap of soortgelyke apparaat vir gebruik in klam ruimtes.

(ii) Hoof- en noodskakelborde moet so ingerig word dat hulle van agter en voor maklik toeganklik is sonder gevaar vir die bedieners. Die sye en agterkante en, waar nodig, die voorkante van skakelborde, moet op geskikte wyse beskerm word. Waar nodig moet daar nie-geleidende matte of roosters voor en agter wees. Blootgestelde stroomdraende dele met geaarde spannings hoër as 'n stroomspanning wat deur die Administrasie gespesifiseer moet word, moet nie aan die voorkant van enige skakelbord of kontrolepaneel geïnstalleer word nie.

(iii) (1) Wanneer die verspreidingstelsel van terugleiding deur die romp gebruik word, moet spesiale voorsorgmaatreëls tot tevredenheid van die Administrasie getref word.

(2) Terugleiding deur die romp mag nie in tenkskepe toegepas word nie.

(iv) (1) Alle metaalmantels en pantsering van kabels moet elektries deurlopend en geaard wees.

(2) Wanneer die kabels nòg bemantel nòg gepantser is en daar in die geval van 'n elektriese fout brandgevaar mag ontstaan, moet voorsorgmaatreëls deur die Administrasie vereis word.

(v) Ligtoebehore moet ingerig word om temperatuurstygings wat vir die bedrading skadelik sal wees, te voorkom en ook om te verhinder dat omringende materiaal oorverhit word.

(vi) Drade moet op so 'n wyse ondersteun word dat hulle nie kan skaaf of anders beskadig kan word nie.

(i) In cargo ships of less than 5 000 tons gross tonnage there shall be a self-contained emergency source of power located to the satisfaction of the Administration, and capable of supplying the illumination at launching stations and stowage positions of survival craft prescribed in subparagraphs (a) (ii), (b) (ii) and (b) (iii) of Regulation 19 of Chapter III, and in addition such other services as the Administration may require, due regard being paid to Regulation 38 of Chapter III.

(ii) The power available shall be adequate for a period of at least three hours.

(iii) These ships shall also be subject to subparagraphs (iii), (iv), and (v) of paragraph (a) of this Regulation.

REGULATION 27

Precautions against shock, fire and other hazards of electrical origin

(a) *Passenger ships and cargo ships.*

(i) (1) All exposed metal parts of electrical machines or equipment which are not intended to be "live" but are liable to become "live" under fault conditions, shall be earthed (grounded); and all electrical apparatus shall be so constructed and so installed that danger of injury in ordinary handling shall not exist.

(2) Metal frames of all portable electric lamps, tools and similar apparatus, supplied as ship's equipment and rated in excess of a safety voltage to be prescribed by the Administration shall be earthed (grounded) through a suitable conductor, unless equivalent provisions are made such as by double insulation or by an isolating transformer. The Administration may require additional special precautions for electric lamps, tools or similar apparatus for use in damp spaces.

(ii) Main and emergency switchboards shall be so arranged as to give easy access back and front, without danger to attendants. The sides and backs and, where necessary, the fronts of switchboards shall be suitably guarded. There shall be non-conducting mats or gratings front and rear where necessary. Exposed current-carrying parts at voltages to earth (ground) exceeding a voltage to be specified by the Administration shall not be installed on the face of any switchboard or control panel.

(iii) (1) Where the hull return system of distribution is used, special precautions shall be taken to the satisfaction of the Administration.

(2) Hull return shall not be used in tankers.

(iv) (1) All metal sheaths and armour of cables shall be electrically continuous and shall be earthed (grounded).

(2) Where the cables are neither sheathed nor armoured and there might be a risk of fire in the event of an electrical fault, precautions shall be required by the Administration.

(v) Lighting fittings shall be arranged to prevent temperature rises that would be injurious to the wiring, and to prevent surrounding material from becoming excessively hot.

(vi) Wiring shall be supported in such a manner as to avoid chafing or other injury.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(vii) Elke afsonderlike stroombaan moet teen kortsluitings beskerm word. Elke afsonderlike stroombaan moet ook teen oorbelasting beskerm word, behalwe soos in Regulasie 30 van hierdie Hoofstuk voorgeskryf of waar die Administrasie vrystelling verleen. Die stroomdravermoë van elke stroombaan moet blywend aangedui word, tesame met die taksasie of stelling van die toepaslike oorlasbeveiligingstoestel.

(viii) Akkumulators moet paslik gehuisves word, en afdelings wat hoofsaaklik vir hul huisvesting gebruik word, moet behoorlik gebou en doeltreffend geventileer word.

(b) *Slegs passasierskepe.*

(i) Verdeelstelsels moet so ingerig wees dat 'n brand in enige hoofbrandsone nie die noodsaaklike dienste in 'n ander hoofbrandsone sal belemmer nie. Daar sal aan hierdie vereiste voldoen wees indien die hoof- en noodvoerders wat deur enige sone loop, sowel vertikaal as horisontaal so ver van mekaar geskei is as wat prakties uitvoerbaar is.

(ii) Elektriese kabels moet van 'n vlamvertragende tipe tot tevredenheid van die Administrasie wees. Die Administrasie kan addisionele beskerming vir elektriese kabels in bepaalde ruimtes van die skip vereis met die oog op voorkoming van brand of ontploffing.

(iii) In ruimtes waar ontvlambare mengsels maklik kan versamel, mag daar geen elektriese uitrusting geïnstalleer word nie tensy dit van 'n tipe is wat nie die betrokke mengsel aan die brand sal steek nie, byvoorbeeld vlamdigte (plofvrye) uitrusting.

(iv) 'n Verligtingstroombaan in 'n bunker of ruim moet met 'n isoleerskakelaar buite die ruimte toegerus word.

(v) Koppelings in alle geleiers, behalwe vir laagspanningverbindingstroombane, kan slegs in aansluit- of uitlaatkaste aangebring word. Al sulke kaste of bedradingsinrigtings moet van sodanige konstruksie wees dat die verspreiding van brand vanaf die kas of inrigting voorkom sal word. Wanneer daar van splitslaswerk gebruik gemaak word, moet dit geskied slegs volgens 'n goedgekeurde metode sodat die oorspronklike meganiese en elektriese eienskappe van die kabel behoue bly.

(vi) Bedradingstelsels vir interne kommunikasie wat noodsaaklik is vir veiligheid en vir noodalarmstelsels moet sodanig ingerig wees dat dit deurgange, masjinerieruimtes en ander ingeslote ruimtes met 'n hoë brandrisiko vermy, behalwe vir sover dit nodig is om kommunikasie te voorsien of alarm te maak binne daardie ruimtes. In die geval van skepe waarvan die konstruksie of beperkte grootte die nakoming van hierdie vereistes verhoed, moet daar maatreëls tot bevrediging van die Administrasie getref word om doeltreffende beskerming vir hierdie bedradingstelsel te verseker waar hulle deur gange, masjinerieruimtes en ander ingeslote ruimtes met 'n hoë brandrisiko moet loop.

(c) *Slegs vragskepe.*

Inrigtings wat maklik kan oorvonk, moet nie geïnstalleer word in 'n afdeling wat hoofsaaklik vir akkumulators bedoel is nie, tensy die inrigtings vlamdig (plofvry) is.

REGULASIE 28

Middels om agteruit te vaar

(a) *Passasierskepe en vragskepe.*

Skepe moet voldoende krag hê om agteruit te vaar sodat behoorlike beheer oor die skip in alle normale omstandighede verseker kan word.

(vii) Each separate circuit shall be protected against short circuit. Each separate circuit shall also be protected against overload, except in accordance with Regulation 30 of this Chapter or where the Administration grants an exemption. The current-carrying capacity of each circuit shall be permanently indicated, together with the rating or setting of the appropriate overload protective device.

(viii) Accumalator batteries shall be suitably housed, and compartments used primarily for their accommodation shall be properly constructed and efficiently ventilated.

(b) *Passenger ships only.*

(i) Distribution systems shall be so arranged that fire in any main fire zone will not interfere with essential services in any other main fire zone. This requirement will be met if main and emergency feeders passing through any zone are separated both vertically and horizontally as widely as is practicable.

(ii) Electric cables shall be of a flame retarding type to the satisfaction of the Administration. The Administration may require additional safeguards for electric cables in particular spaces of the ship with a view to the prevention of fire or explosion.

(iii) In spaces where inflammable mixtures are liable to collect, no electrical equipment shall be installed unless it is of a type which will not ignite the mixture concerned, such as flameproof (explosion proof) equipment.

(iv) A lighting circuit in a bunker or hold shall be provided with an isolating switch outside the space.

(v) Joints in all conductors except for low voltage communication circuits shall be made only in junction or outlet boxes. All such boxes or wiring devices shall be so constructed as to prevent the spread of fire from the box or device. Where splicing is employed it shall only be by an approved method such that it retains the original mechanical and electrical properties of the cable.

(vi) Wiring systems for interior communications essential for safety and for emergency alarm systems shall be arranged to avoid galleys, machinery spaces and other enclosed spaces having a high risk of fire except in so far as it is necessary to provide communication or to give alarm within those spaces. In the case of ships the construction and small size of which do not permit of compliance with these requirements, measures satisfactory to the Administration shall be taken to ensure efficient protection for these wiring systems where they pass through galleys, machinery spaces and other enclosed spaces having a high risk of fire.

(c) *Cargo ships only.*

Devices liable to arc shall not be installed in any compartment assigned principally to accumalator batteries unless the devices are flameproof (explosion proof).

REGULATION 28

Means of going astern

(a) *Passenger ships and cargo ships.*

Ships shall have sufficient power for going astern to secure proper control of the ship in all normal circumstances.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(b) *Slegs passasierskepe.*

Tydens die eerste ondersoek moet daar gedemonstreer word in watter mate die masjinerie die vermoë besit om die stootrigting van die skroef in normale maneuvreertoestande betyds om te keer en sodoende die skip tot stilstand te bring vanaf die maksimum dienssnelheid vorentoe.

REGULASIE 29

*Stuurinrigting**

(a) *Passasierskepe en vragskepe.*

(i) Skepe moet tot tevredenheid van die Administrasie toegerus wees met 'n hoofstuurinrigting en 'n hulpstuurinrigting.

(ii) Die hoofstuurinrigting moet sterk genoeg en voldoende wees om die skip teen die maksimum dienssnelheid te stuur. Die hoofstuurinrigting en roerkoning moet so ontwerp wees dat hulle nie beskadig sal word as daar met volle krag agtertoe gevaar word nie.

(iii) Die hulpstuurinrigting moet sterk genoeg en voldoende wees om die skip teen vaarbare spoed te stuur en moet in staat wees om in 'n noodgeval vinnig in werking gebring te kan word.

(iv) Die juiste posisie van die roer, indien met kragbediening, moet by die hoofstuurpos aangedui word.

(b) *Slegs passasierskepe.*

(i) Die hoofstuurinrigting moet in staat wees om die roer vanaf 35 grade aan die een kant tot 35 grade aan die ander kant oor te bring wanneer die skip teen die maksimum dienssnelheid vorentoe vaar. Wanneer die skip teen die maksimum dienssnelheid vaar, moet die roer in staat wees om in 28 sekondes vanaf 35 grade aan enige kant tot 30 grade aan die ander kant oorgebring te word.

(ii) Die hulpstuurinrigting moet kragbediening hê in enige geval waar die Administrasie 'n roerkoning met 'n deursnee van meer as 228,6 millimeter (9 duim) sou vereis op die plek waar die roerpen aangebring is.

(iii) Waar die hoofstuurinrigtingskrageenhede en hul verbindings in tweevoud tot tevredenheid van die Administrasie aangebring word, en elke krageenheid die stuurinrigting in staat stel om aan die vereistes van subparagraaf (i) van hierdie paragraaf te voldoen, hoef geen hulpstuurinrigtings vereis te word nie.

(iv) Waar die Administrasie 'n roerkoning met 'n deursnee van meer as 228,6 millimeter (9 duim) sou vereis op die plek waar die roerpen aangebring is, moet 'n alternatiewe stuurpos aangebring word op 'n plek wat die goedkeuring van die Administrasie wegdra. Die afstandstuurbeheerstelsels vanaf die hoof- en alternatiewe stuurposte moet tot bevrediging van die Administrasie so ingerig word dat, indien enige van die stelsels defek raak, dit nie sou veroorsaak dat die skip nie deur middel van die ander stelsel gestuur kan word nie.

(v) Middels tot tevredenheid van die Administrasie moet aangebring word sodat bevele vanaf die brug na die alternatiewe stuurpos oorgestuur kan word.

(c) *Slegs vragskepe.*

(i) Die hulpstuurinrigting moet kragbediening hê in enige geval waar die Administrasie 'n roerkoning met 'n deursnee van meer as 355,6 millimeter (14 duim) sou vereis op die plek waar die roerpen aangebring is.

* Hier word verwys na die Recommendation on Steering Gear for Large Ships, soos deur die Organisasie aanvaar by Resolusie A.210 (VII).

(b) *Passenger ships only.*

The ability of the machinery to reverse the direction of thrust of the propeller in sufficient time, under normal manoeuvring conditions, and so to bring the ship to rest from maximum ahead service speed shall be demonstrated at the initial survey.

REGULATION 29

*Steering gear**

(a) *Passenger ships and cargo ships.*

(i) Ships shall be provided with a main steering gear and an auxiliary steering gear to the satisfaction of the Administration.

(ii) The main steering gear shall be of adequate strength and sufficient to steer the ship at maximum service speed. The main steering gear and rudder stock shall be so designed that they are not damaged at maximum astern speed.

(iii) The auxiliary steering gear shall be of adequate strength and sufficient to steer the ship at navigable speed and capable of being brought speedily into action in an emergency.

(iv) The exact position of the rudder, if power operated, shall be indicated at the principal steering station.

(b) *Passenger ships only.*

(i) The main steering gear shall be capable of putting the rudder over from 35 degrees on one side to 35 degrees on the other side with the ship running ahead at maximum service speed. The rudder shall be capable of being put over from 35 degrees on either side to 30 degrees on the other side in 28 seconds at maximum service speed.

(ii) The auxiliary steering gear shall be operated by power in any case in which the Administration would require a rudder stock of over 228,6 millimetres (9 inches) diameter in way of the tiller.

(iii) Where main steering gear power units and their connections are fitted in duplicate to the satisfaction of the Administration, and each power unit enables the steering gear to meet the requirements of subparagraph (i) of this paragraph, no auxiliary steering gear need be required.

(iv) Where the Administration would require a rudder stock with a diameter in way of the tiller exceeding 228,6 millimetres (9 inches) there shall be provided an alternative steering station located to the satisfaction of the Administration. The remote steering control systems from the principal and alternative steering stations shall be so arranged to the satisfaction of the Administration that failure of either system would not result in inability to steer the ship by means of the other system.

(v) Means satisfactory to the Administration shall be provided to enable orders to be transmitted from the bridge to the alternative steering station.

(c) *Cargo ships only.*

(i) The auxiliary steering gear shall be operated by power in any case in which the Administration would require a rudder stock of over 355,6 millimetres (14 inches) diameter in way of the tiller.

* Reference is made to the Recommendation on Steering Gear for Large Ships, adopted by the Organization by Resolution A.210 (VII).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(ii) Waar stuurinrigtingeenhede met kragbediening en hul verbindings in tweevoud tot tevredenheid van die Administrasie aangebring word en elke eenheid aan die bepalings van subparagraaf (iii) van paragraaf (a) van hierdie Regulasie voldoen, hoef hulpstuurinrigtings nie vereis te word nie, mits die duplikaateenhede en hul verbindings, wanneer hulle gesamentlik in werking is, aan die bepalings van subparagraaf (ii) van paragraaf (a) van hierdie Regulasie voldoen.

REGULASIE 30

*Elektriese en elektrohidrouliese stuurinrigting**

(a) *Passasierskepe en vragskepe.*

Aanwysers vir lopende aanwysing in verband met die motore van elektriese en elektrohidrouliese stuurinrigtings moet geïnstalleer word op 'n geskikte plek tot tevredenheid van die Administrasie.

(b) *Alle passasierskepe (ongeag tonnemaat) en vragskepe van 5 000 ton bruto tonnemaat en meer.*

(i) Elektriese en elektrohidrouliese stuurinrigtings moet bedien word deur twee stroombane wat vanaf die hoofskakelbord gevoer word. Een van die stroombane kan deur die noodskakelbord loop, indien dié voorsien is. Elke stroombaan moet voldoende vermoë hê om al die motore wat normaalweg daarmee verbind is en gelyktydig werk, van krag te voorsien. Indien oorskakelingsinrigtings in die stuurinrigtingskamer aangebring is om toe te laat dat elk van die stroombane enige motor of kombinasie van motore van krag voorsien, moet elke stroombaan se vermoë voldoende wees vir die strafste belastingtoestand. Die stroombane moet oor hul hele lengte sover as wat prakties uitvoerbaar is van mekaar verwyder wees.

(ii) Slegs beskerming teen kortsluitings moet vir hierdie stroombane en motore verskaf word.

(c) *Vragskepe van minder as 5 000 ton bruto tonnemaat.*

(i) Vragskepe waarin elektriese krag die uitsluitlike kragbron vir sowel die hoof- as die hulpstuurinrigting is, moet aan die bepalings van subparagrawe (i) en (ii) van paragraaf (b) van hierdie Regulasie voldoen, behalwe dat daar van die bepalings van subparagraaf (b) (ii) afgesien kan word indien die hulpstuurinrigting van krag voorsien word deur 'n motor wat hoofsaaklik vir ander dienste bedoel is; met dien verstande dat die Administrasie tevrede is met die beskermingsreëlings.

(ii) Slegs beskerming teen kortsluitings moet verskaf word vir motore en kragstroombane van hoofstuurinrigtings wat elektries of elektrohidroulies bedien word.

REGULASIE 31

Posisie van noodinstallasies in passasierskepe

Die noodelektrisiteitskragbron, noodbrandpompe, noodlenspompe, battery van kooldioksiedbottels vir brandblusdoeleindes en ander noodinstallasies wat noodsaaklik is vir die veiligheid van die skip, mag nie in 'n passasierskip voor die aanvaringsbeskot aangebring word nie.

* Hier word verwys na die Recommendation on Steering Gear for Large Ships, soos deur die Organisasie aanvaar by Resolusie A.210 (VII).

(ii) Where power-operated steering gear units and connections are fitted in duplicate to the satisfaction of the Administration, and each unit complies with subparagraph (iii) of paragraph (a) of this Regulation, no auxiliary steering gear need be required, provided that the duplicate units and connections operating together comply with subparagraph (ii) of paragraph (a) of this Regulation.

REGULATION 30

*Electric and electrohydraulic steering gear**

(a) *Passenger ships and cargo ships.*

Indicators for running indication of the motors of electric and electrohydraulic steering gear shall be installed in a suitable location to the satisfaction of the Administration.

(b) *All passenger ships (irrespective of tonnage) and cargo ships of 5 000 tons gross tonnage and upwards.*

(i) Electric and electrohydraulic steering gear shall be served by two circuits fed from the main switchboard. One of the circuits may pass through the emergency switchboard, if provided. Each circuit shall have adequate capacity for supplying all the motors which are normally connected to it and which operate simultaneously. If transfer arrangements are provided in the steering gear room to permit either circuit to supply any motor or combination of motors, the capacity of each circuit shall be adequate for the most severe load condition. The circuits shall be separated throughout their length as widely as is practicable.

(ii) Short circuit protection only shall be provided for these circuits and motors.

(c) *Cargo ships of less than 5 000 tons gross tonnage.*

(i) Cargo ships in which electrical power is the sole source of power for both main and auxiliary steering gear shall comply with subparagraphs (i) and (ii) of paragraph (b) of this Regulation, except that if the auxiliary steering gear is powered by a motor primarily intended for other services, paragraph (b) (ii) may be waived, provided that the Administration is satisfied with the protection arrangements.

(ii) Short circuit protection only shall be provided for motors and power circuits of electrically or electrohydraulically operated main steering gear.

REGULATION 31

Location of emergency installations in passenger ships

The emergency source of electrical power, emergency fire pumps, emergency bilge pumps, batteries of carbon dioxide bottles for the fire extinguishing purposes and other emergency installations which are essential for the safety of the ship shall not be installed in a passenger ship forward of the collision bulkhead.

* Reference is made to the Recommendation on Steering Gear for Large Ships, adopted by the Organization by Resolution A.210 (VII).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 32

Verbinding tussen die brug en masjienkamer

Skepe moet toegerus wees met twee middele om bevele vanaf die brug na die masjienkamer oor te stuur. Een middel moet 'n masjienkamertelegraaf wees.

HOOFSTUK II–2

KONSTRUKSIE—BRANDBESKERMING, BRANDOPSPORING EN BRANDBLUSSING

DEEL A—ALGEMEEN*

REGULASIE 1

Toepassing

(a) Vir die doeleindes van hierdie Hoofstuk—

(i) is 'n nuwe passasierskip 'n passasierskip waarvan die kiel gelê is of wat op 'n dergelike stadium van konstruksie is op of na die datum van inwerkingtreding van die huidige Konvensie, of 'n vragskip wat op of na daardie datum in 'n passasierskip omgeskep is, terwyl alle ander passasierskepe as bestaande skepe beskou word;

(ii) is 'n nuwe vragskip 'n vragskip waarvan die kiel gelê is of wat op 'n dergelike stadium van konstruksie is op of na die datum van inwerkingtreding van die huidige Konvensie;

(iii) moet 'n skip wat herstelwerk, verbouings en modifiëring met gepaardgaande uitrusting ondergaan, moet steeds ten minste voldoen aan die vereistes wat voorheen op die skip van toepassing was. In sodanige geval moet 'n skip oor die algemeen nie in 'n mindere mate aan die vereistes vir 'n nuwe skip voldoen as voorheen nie. Herstelwerk, verbouings en modifiërings van 'n groter aard, met die gepaardgaande uitrusting behoort te voldoen aan die vereistes vir 'n nuwe skip vir sover die Administrasie dit redelik en prakties ag.

(b) Tensy dit uitdruklik anders bepaal word—

(i) geld Regulasies 4 tot 16 van Deel A van hierdie Hoofstuk vir nuwe skepe;

(ii) geld Deel B van hierdie Hoofstuk vir nuwe passasierskepe met meer as 36 passasiers;

(iii) geld Deel C van hierdie Hoofstuk vir nuwe passasierskepe met nie meer as 36 passasiers nie;

(iv) geld Deel D van hierdie Hoofstuk vir nuwe vragskepe;

(v) geld Deel E van hierdie Hoofstuk vir nuwe tenkskepe.

(c) (i) Deel F van hierdie Hoofstuk geld vir bestaande passasierskepe met minder as 36 passasiers.

(ii) Bestaande passasierskepe met minder as 36 passasiers en bestaande vragskepe moet aan die volgende voldoen:

(1) Ten opsigte van skepe waarvan die kiele gelê is of wat op 'n dergelike stadium van konstruksie was op of na die inwerkingtreding van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960, moet die Administrasie verseker dat hulle voldoen aan die vereistes wat ingevolge Hoofstuk II van daardie Konvensie toegepas is op nuwe skepe soos gedefinieer in daardie hoofstuk.

* Hier word verwys na die *Recommendation on Safety Measures for Periodically Unattended Machinery Spaces of Cargo Ships additional to those normally considered necessary for an Attended Machinery Space*, soos deur die Organisasie aangeneem by Resolusie A. 211 (VII).

REGULATION 32

Communication between bridge and engine room

Ship shall be fitted with two means of communicating orders from the bridge to the engine room. One means shall be an engine room telegraph.

CHAPTER II-2

CONSTRUCTION—FIRE PROTECTION, FIRE DETECTION AND FIRE EXTINCTION

PART A—GENERAL*

REGULATION 1

Application

(a) For the purpose of this Chapter—

(i) a new passenger ship is a passenger ship the keel of which is laid or which is at a similar stage of construction on or after the date of coming into force of the present Convention, or a cargo ship which is converted to a passenger ship on or after that date, all other passenger ships being considered as existing ships;

(ii) a new cargo ship is a cargo ship the keel of which is laid or which is at a similar stage of construction on or after the date of coming into force of the present Convention;

(iii) a ship which undergoes repairs, alterations, modifications and outfitting related thereto shall continue to comply with at least the requirements previously applicable to the ship. An existing ship in such a case shall not as a rule comply to a lesser extent with the requirements for a new ship than it did before. Repairs, alterations and modifications of a major character and outfitting related thereto should meet the requirements for a new ship in so far as the Administration deems reasonable and practicable.

(b) Unless expressly provided otherwise—

(i) Regulations 4 to 16 of Part A of this Chapter apply to new ships;

(ii) Part B of this Chapter applies to new passenger ships carrying more than 36 passengers;

(iii) Part C of this Chapter applies to new passenger ships carrying not more than 36 passengers;

(iv) Part D of this Chapter applies to new cargo ships;

(v) Part E of this Chapter applies to new tankers.

(c) (i) Part F of this Chapter applies to existing passenger ships carrying more than 36 passengers.

(ii) Existing passenger ships carrying not more than 36 passengers and existing cargo ships shall comply with the following:

(1) For ships the keels of which were laid or which were at a similar stage of construction on or after the date of coming into force of the International Convention for the Safety of Life at Sea, 1960, the Administration shall ensure that the requirements which were applied under Chapter II of that Convention to new ships as defined in that Chapter are complied with;

* Reference is made to Recommendation on Safety Measures for Periodically Unattended Machinery Spaces of Cargo Ships additional to those normally considered necessary for an Attended Machinery Space, adopted by the Organization by Resolution A. 211 (VII).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(2) Ten opsigte van skepe waarvan die kiele gelê is of wat op 'n dergelike stadium van konstruksie was op of na die datum van inwerkingtreding van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1948, maar voor die inwerkingtreding van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960, moet die Administrasie verseker dat hulle voldoen aan die vereistes wat ingevolge Hoofstuk II van die Konvensie van 1948 toegepas is op nuwe skepe soos gedefinieer in daardie hoofstuk.

(3) Ten opsigte van skepe waarvan die kiele gelê is of wat op 'n dergelike stadium van konstruksie was voor die inwerkingtreding van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1948, moet die Administrasie verseker dat hulle voldoen aan die vereistes wat ingevolge Hoofstuk II van daardie Konvensie toegepas is op bestaande skepe soos gedefinieer in daardie hoofstuk.

(d) Ten opsigte van enige bestaande skip soos gedefinieer in die huidige Konvensie moet die Administrasie benewens die toepassing van die vereistes van subparagraaf (c) (i) van hierdie Regulasie, besluit watter van die vereistes van hierdie Hoofstuk moet geld wat nie in die bepalings van die Konvensie van 1948 en 1960 vervat is nie.

(e) Indien die Administrasie meen dat die beskutte aard en omstandighede van die reis sodanig is dat die toepassing van bepaalde vereistes van hierdie Hoofstuk daardeur onredelik of onnodig gemaak word, kan hy vrystelling van daardie vereistes verleen aan individuele skepe of klasse skepe wat aan sy land behoort en wat gedurende hulle reis nie verder as 20 myl van die naaste land af vaar nie.

(f) In die geval van passasierskepe wat in spesiale ondernemings vir die vervoer van groot getalle passasiers soos byvoorbeeld pelgrimondernemings, gebruik word, kan die Administrasie, indien hy daarvan oortuig is dat die vereistes van hierdie Hoofstuk onmoontlik nagekom kan word, sodanige skepe van daardie vereistes vrystel indien hulle aan sy land behoort, op voorwaarde dat hulle geheel en al voldoen aan die bepalings van—

(i) die reëls in die Bylae van die *Special Trade Passenger Ships Agreement*, 1971; en

(ii) die reëls in die Bylae van die *Protocol on Space Requirements for Special Trade Passenger Ships*, 1973, wanneer dit van krag word.

REGULASIE 2

Grondbeginsels

Die doel van hierdie Hoofstuk is om die hoogs moontlike mate van brandbeskerming, brandopsporing en brandblussing op skepe te vereis. Die volgende basiese vereistes lê ten grondslag van die regulasies in hierdie Hoofstuk en word toepaslik in die regulasies vervat, met inagneming van die soorte skepe en hulle potensiële brandgevaar:

(a) Verdeling van die skip in hoof- vertikale sones deur termiese en strukturele grense;

(b) skeiding van akkommodasieruimtes van die res van die skip deur termiese en strukturele grense;

(c) beperkte gebruik van brandbare stowwe;

(d) opsporing van enige brand in die ruimte waar dit ontstaan;

(e) inperking en blussing van enige brand binne die ruimte waar dit ontstaan;

(2) for ships the keels of which were laid or which were at a similar stage of construction on or after the date of coming into force of the International Convention for the Safety of Life at Sea, 1948, but before the date of coming into force of the International Convention for the Safety of Life at Sea, 1960, the Administration shall ensure that the requirements which were applied under Chapter II of the 1948 Convention to new ships as defined in that Chapter are complied with;

(3) for ships the keels of which were laid or which were at a similar stage of construction before the date of coming into force of the International Convention for the Safety of Life at Sea, 1948, the Administration shall ensure that the requirements which were applied under Chapter II of that Convention to existing ships as defined in that Chapter are complied with.

(d) For any existing ship as defined in the present Convention the Administration, in addition to applying the requirements of subparagraph (c) (i) of this Regulation, shall decide which of the requirements of this Chapter not contained in Chapter II of the 1948 and 1960 Conventions shall be applied.

(e) 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 belonging to its country which, in the course of their voyage, do not proceed more than 20 miles from the nearest land.

(f) 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, when they belong to its country, from those requirements, provided that they comply fully with the provisions of—

(i) the Rules annexed to the Special Trade Passenger Ships Agreement, 1971; and

(ii) the Rules annexed to the Protocol on Space Requirements for Special Trade Passenger Ships, 1973, when it comes into force.

REGULATION 2

Basic principles

The purpose of this Chapter is to require the fullest practicable degree of fire protection, fire detection and fire extinction in ships. The following basic principles underlie the Regulations in this Chapter and are embodied in the Regulations as appropriate, having regard to the type of ships and the potential fire hazard involved:

(a) Division of ship into main vertical zones by thermal and structural boundaries;

(b) separation of accommodation spaces from the remainder of the ship by thermal and structural boundaries;

(c) restricted use of combustible materials;

(d) detection of any fire in the zone of origin;

(e) containment and extinction of any fire in the space of origin;

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(f) beskerming van nooduitgange of toegange vir brandbestryding;

(g) maklike beskikbaarheid van brandblusapparaat;

(h) minimalisering van die ontbrandingsmoontlikheid van ontvlambare* vragdampe.

REGULASIE 3

Definisies

Vir die doeleindes van hierdie Hoofstuk geld die onderstaande definisies, tensy dit uitdruklik anders bepaal word—

(a) "Onbrandbare materiaal" beteken 'n materiaal wat nie brand of ontvlambare dampe in genoegsame hoeveelhede afgee vir selfontbranding wanneer dit tot ongeveer 750 °C (1 382 °F) verhit word nie, soos bepaal deur 'n vasgestelde toetsprosedure† tot bevrediging van die Administrasie. Alle ander stowwe is brandbare materiaal.

(b) "'n Standaardvuurproef" is 'n toets waarin monsters van die betrokke beskotte of dekke in 'n toetsoond blootgestel word aan temperature wat naastenby ooreenkom met die standaard tyd-temperatuurkurwe. Die monster moet 'n blootgestelde oppervlak van nie minder nie as 4,65 vierkante meter (50 vierkante voet) en hoogte (of lengte van die dek) van 2,44 meter (8 voet), wat so na as moontlik ooreenkom met die beoogde konstruksie en wat, waar toepaslik, minstens een voeg insluit. Die standaard tyd-temperatuurkurwe word aangedui deur 'n egalige kurwe deur die volgende punte:

Aan die einde van die eerste 5 minute—538 °C (1 000 °F)

Aan die einde van die eerste 10 minute—704 °C (1 300 °F)

Aan die einde van die eerste 30 minute—843 °C (1 550 °F)

Aan die einde van die eerste 60 minute—927 °C (1 700 °F)

(c) "Klas 'A'-verdelings" is daardie verdelings gevorm deur beskotte en dekke wat aan die volgende vereistes voldoen:

(i) Hulle moet van staal of ander ekwivalente materiaal gebou wees;

(ii) hulle moet op geskikte wyse verstewig wees;

(iii) hulle moet so gebou wees dat hulle in staat is om die deurgang van rook en vlamme tot aan die einde van die standaardvuurproef van een uur te verhoed;

(iv) hulle moet met goedgekeurde onbrandbare materiaal geïsoleer wees sodat die gemiddelde hittegraad van die nie-blootgestelde kant nie meer as 139 °C (250 °F) bo die oorspronklike temperatuur styg nie, en die temperatuur op geen punt, met inbegrip van enige voeg, meer as 180 °C (325 °F) bo die oorspronklike temperatuur bereik binne die onderstaande tye nie:

Klas "A60"—60 minute;

Klas "A30"—30 minute;

Klas "A15"—15 minute;

Klas "A0"—0 minute;

* "Ontvlambaar" beteken dieselfde as "vlambaar".

† Hier word verwys na die *Recommendation on Test Method for Qualifying Marine Construction Materials as Non-Combustible*, soos deur die Organisasie aanvaar by Resolusie A. 270 (VIII).

(f) protection of means of escape or access for fire fighting;

(g) ready availability of fire-extinguishing appliances;

(h) minimization of possibility of ignition of inflammable* cargo vapour.

REGULATION 3

Definitions

For the purpose of this Chapter, unless expressly provided otherwise—

(a) "Non-combustible material" means a material which neither burns nor gives off inflammable vapours in sufficient quantity for self-ignition when heated to approximately 750 °C (1 382 °F) this being determined to the satisfaction of the Administration by an established test procedure.† Any other material is a combustible material.

(b) "A Standard Fire Test" is one in which specimens of the relevant bulkheads or decks are exposed in a test furnace to temperatures corresponding approximately to the standard time-temperature curve. The specimen shall have an exposed surface of not less than 4,65 square metres (50 square feet) and height (or length of deck) of 2,44 metres (8 feet) resembling as closely as possible the intended construction and including where appropriate at least one joint. The standard time-temperature curve is defined by a smooth curve drawn through the following points:

At the end of the first 5 minutes—538 °C (1 000 °F).

At the end of the first 10 minutes—704 °C (1 300 °F).

At the end of the first 30 minutes—843 °C (1 550 °F).

At the end of the first 60 minutes—927 °C (1 700 °F).

(c) "'A' Class Divisions" are those divisions formed by bulkheads and decks which comply with the following:

(i) They shall be constructed of steel or other equivalent material;

(ii) they shall be suitably stiffened;

(iii) they shall be so constructed as to be capable of preventing the passage of smoke and flame to the end of the one-hour standard fire test;

(iv) they shall be insulated with approved non-combustible materials such that the average temperature of the unexposed side will not rise more than 139 °C (250 °F) above the original temperature, nor will the temperature, at any one point, including any joint, rise more than 180 °C (325 °F) above the original temperature, within the time listed below:

Class "A-60"—60 minutes.

Class "A-30"—30 minutes.

Class "A-15"—15 minutes.

Class "A-0"—0 minutes.

* "Inflammable" has the same meaning as "flammable."

† Reference is made to Recommendation on Test Method for Qualifying Marine Construction Materials as Non-Combustible, adopted by the Organization by Resolution A.270 (VIII).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(v) die Administrasie kan die toetsing van 'n prototipe beskot of dek vereis om te verseker dat dit aan die bogenoemde vereistes ten opsigte van integriteit en temperatuurstygings voldoen*.

(d) "Klas 'B'-verdelings" is daardie verdelings gevorm deur beskotte, dekke, plafonne of voerings wat aan die volgende voldoen:

(i) Hulle moet sodanig gebou wees dat hulle in staat is om die deurgang van vlamme tot aan die einde van die eerste halfuur van die standaardvuurproef te verhoed;

(ii) hulle moet sodanige isolasiewaarde hê dat die gemiddelde hittegraad van die nie-blootgestelde kant nie meer as 139 °C (250 °F) bo die oorspronklike temperatuur styg nie, en die temperatuur op geen punt, met inbegrip van enige voeg, meer as 225 °C (405 °F) bo die oorspronklike temperatuur bereik binne die onderstaande tye nie:

Klas "B15"—15 minute;
Klas "B0"—0 minute;

(iii) hulle moet gebou wees van goedgekeurde onbrandbare materiale en alle materiale wat vir die konstruksie en oprigting van Klas "B"-verdelings gebruik word moet onbrandbaar wees, behalwe waar die gebruik van brandbare materiaal ooreenkomstig Dele C en D van hierdie Hoofstuk nie uitgesluit word nie, in welke geval dit moet voldoen aan die temperatuurstygingsperk uiteengesit in subparagraaf (ii) van hierdie paragraaf tot aan die einde van die eerste halfuur van die standaardvuurproef;

(iv) die Administrasie kan die toetsing van 'n prototipe verdeling vereis om te verseker dat dit aan die bogenoemde vereistes ten opsigte van integrasie en temperatuurstyging* voldoen.

(e) "Klas 'C'-verdelings" moet gebou wees van goedgekeurde onbrandbare materiale. Hulle hoef aan geen vereistes te voldoen ten opsigte van die deurlating van rook of vlamme of die beperking van temperatuurstyging nie.

(f) "Deurlopende Klas 'B'-plafonne of -voerings" is daardie Klas "B"-plafonne of -voerings wat net ophou by 'n Klas "A"- of Klas "B"-verdeling.

(g) "Staal of ander ekwivalente materiaal." Waar die woorde "staal of ander ekwivalente materiaal" voorkom, beteken "ekwivalente materiaal" enige materiaal wat op sigself of weens isolering wat voorsien is, strukturele en integriteitseienskappe gelyke aan staal toon aan die einde van die toepaslike vuurblootstelling in die standaardvuurproef (byvoorbeeld aluminiumallooi met paslike isolering).

(h) "Lae vlamverspreiding" beteken dat die oppervlak wat aldus beskryf word, die verspreiding van vlamme toereikend sal beperk, en dit moet tot bevrediging van die Administrasie deur middel van 'n vaste toetsprosedure bepaal word.

(i) "Vertikale hoofsones" is daardie seksies waarin die romp, bobou en dekhuise deur Klas "A"-verdelings verdeel is, waarvan die gemiddelde lengte op enige dek in die algemeen nie 40 meter (131 voet) te bowe gaan nie.

(j) "Akkommodasieruimtes" is dié wat gebruik word vir openbare ruimtes, gange, toilette, kajuite, kantore, bemanningskwartiere, haarsalonne, geïsoleerde spense en sluitkaste en dergelike ruimtes.

* Hier word verwys na die *Recommendation for Fire Test Procedures for "A" and "B" Class Divisions*, soos deur die Organisasie aanvaar by Resolusies A. 163 (ES. IV) en A. 215 (VII).

(v) the Administration may require a test of a prototype bulkhead or deck to ensure that it meets the above requirements for integrity and temperature rise.*

(d) "'B' Class Divisions" are those divisions formed by bulkheads, decks, ceilings or linings which comply with the following:

(i) They shall be so constructed as to be capable of preventing the passage of flame to the end of the first one-half hour of the standard fire test;

(ii) they shall have an insulation value such that the average temperature of the unexposed side will not rise more than 139 °C (250 °F) above the original temperature, nor will the temperature at any one point, including any joint, rise more than 225°C (405°F) above the original temperature, within the time listed below:

Class "B-15"—15 minutes;

Class "B-0"—0 minutes;

(iii) they shall be constructed of approved non-combustible materials and all materials entering into the construction and erection of "B" Class divisions shall be non-combustible, except where in accordance with Parts C and D of this Chapter the use of combustible material is not precluded, in which case it shall comply with the temperature rise limitation specified in subparagraph (ii) of this paragraph up to the end of the first one-half hour of the standard fire test;

(iv) the Administration may require a test of a prototype division to ensure that it meets the above requirements for integrity and temperature rise.*

(e) "'C' Class Divisions" shall be constructed of approved non-combustible materials. They need meet no requirements relative to the passage of smoke and flame nor the limiting of temperature rise.

(f) "Continuous 'B' Class Ceilings or Linings" are those "B" Class ceilings or linings which terminate only at an "A" or "B" Class division.

(g) "Steel or Other Equivalent Material". Where the word "steel or other equivalent material" occur, "equivalent material" means any material which, by itself or due to insulation provided, has structural and integrity properties equivalent to steel at the end of the applicable fire exposure to the standard fire test (e.g. aluminium alloy with appropriate insulation).

(h) "Low Flame Spread" means that the surface thus described will adequately restrict the spread of flame, this being determined to the satisfaction of the Administration by an established test procedure.

(i) "Main Vertical Zones" are those sections into which the hull, superstructure, and deckhouses are devided by "A" Class divisions, the mean length of which on any one deck does not in general exceed 40 metres (131 feet).

(j) "Accommodation Spaces" are those used for public spaces, corridors, lavatories, cabins, offices, crew quarters, barber shops, isolated pantries and lockers and similar spaces.

* Reference is made to Recommendation for Fire Test Procedures for "A" and "B" Class Divisions, adopted by the Organization by Resolutions A. 163 (ES. IV) and A. 215 (VII).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(k) "Openbare ruimtes" is daardie dele van die akkommodasie wat gebruik word as sale, eetkamers en soortgelyke blywend omslote ruimtes.

(l) "Diensruimtes" is dié wat gebruik word as skeepskombuise, hoofspense, proviandkamers (uitgesonderd geïsoleerde spense en sluitkaste), pos- en spesiekamers, werkwinkels wat nie deel van die masjinerieruimtes vorm nie en soortgelyke ruimtes en kokers na sulke ruimtes.

(m) "Vragruimtes" is alle ruimtes wat gebruik word vir vrag (met inbegrip van vragolietenks) en kokers na sulke ruimtes.

(n) "Spesiale kategorie-ruimtes" is daardie omslote ruimtes op of onder die beskotdek vir die vervoer van motorvoertuie met brandstof in hulle tenks vir eie aandrywing, waarin en waaruit sulke voertuie bestuur kan word en waartoe die passasiers toegang het.

(o) "Masjinerieruimtes van Kategorie A" is alle ruimtes met—

(i) binnebrandmasjinerie vir hoofaandrywing, of vir ander doeleindes waar sodanige masjinerie gesamentlik 'n kraglewering het van nie minder nie as 373 kW; of

(ii) enige oliegestookte ketel of oliebrandstofeenheid, en kokers na sulke ruimtes.

(p) "Masjinerieruimtes" sluit in alle masjinerieruimtes van kategorie A en alle ander ruimtes met aandrywingsmasjinerie, stoomketels, oliebrandstofeenhede, stoom- en binnebrandenjins, kragopwekkers en groter elektriese masjinerie, olievulstasies, verkoelings-, stabiliserings-, ventilerings- en lugversorgingsmasjinerie en soortgelyke ruimtes en kokers na sulke ruimtes.

(q) "Oliebrandstofeenheid" beteken die toerusting vir die bereiding van oliebrandstof vir voorsiening aan 'n oliegestookte ketel, of toerusting vir die bereiding van verhitte olie vir voorsiening aan 'n binnebrandmasjien, en sluit enige oliedrukpompe, filters en verwarmers in wat te doen het met olie teen 'n druk van meer as 1,8 kilogram per vierkante sentimeter (25 pond per vierkante duim).

(r) "Beheerposte" is die ruimtes waarin die skip se radio- of hoofnavigasietoerusting of die noodkragbron geleë is, of waar die brandverkliktoerusting of brandbeheerapparaat gesentreer is.

(s) "Kamers met meubels en toebehore met beperkte brandrisiko" is, vir die doeleindes van Regulasie 20 van hierdie Hoofstuk, daardie vertrekke met meubels en toebehore met beperkte brandrisiko (of dit nou ook al kajuite, openbare ruimtes, kantore of ander soorte akkommodasie is) waarin—

(i) alle omslote meubels soos lessenaars, hangkaste, kleedtafels, skryftafels en aanhegte geheel en al van onbrandbare stowwe gemaak is, behalwe dat 'n brandbare fineer van nie dikker as 2 millimeter ($\frac{1}{12}$ duim) nie gebruik kan word vir die werkoppervlaktes van sodanige artikels;

(ii) alle vrystaande meubels soos stoele, sofas en tafels raamwerke van onbrandbare stowwe het;

(iii) alle draperings, gordyne en ander hangende tekstielstowwe tot bevrediging van die Administrasie weerstandseienskappe teen die verspreiding van vlamme het wat nie minder is as dié van wol wat 0,8 kilogram per vierkante meter (24 onse per vierkante jaart) weeg nie;

(k) "Public Spaces" are those portions of the accommodation which are used for halls, dining rooms, lounges and similar permanently enclosed spaces.

(l) "Service Spaces" are those used for galleys, main pantries, stores (except isolated pantries and lockers), mail and specie rooms, workshops other than those forming part of machinery spaces, and similar spaces and trunks to such spaces.

(m) "Cargo Spaces" are all spaces used for cargo (including cargo oil tanks) and trunks to such spaces.

(n) "Special Category Spaces" are those enclosed spaces above or below the bulkhead deck intended for the carriage of motor vehicles with fuel in their tanks for their own propulsion, into and from which such vehicles can be driven and to which passengers have access.

(o) "Machinery Spaces of Category A" are all spaces which contain—

(i) internal combustion type machinery used either for main propulsion purposes, or for other purposes where such machinery has in the aggregate a total power output of not less than 373 kW; or

(ii) any oil-fired boiler or oil fuel unit; and trunks to such spaces.

(p) "Machinery Spaces" are all machinery spaces of Category A and all other spaces containing propelling machinery, boilers, oil fuel units, steam and internal combustion engines, generators and major electrical machinery, oil filling stations, refrigerating, stabilizing, ventilation and air conditioning machinery, and similar spaces; and trunks to such spaces.

(q) "Oil Fuel Unit" means the equipment used for the preparation of oil fuel for delivery to an oil-fired boiler, or equipment used for the preparation for delivery of heated oil to an internal combustion engine, and includes any oil pressure pumps, filters and heaters dealing with oil at a pressure more than 1,8 kilogrammes per square centimetre (25 pounds per square inch) gauge.

(r) "Control Stations" are those spaces in which the ship's radio or main navigating equipment or the emergency source of power is located or where the fire recording or fire control equipment is centralized.

(s) "Rooms containing Furniture and Furnishings of Restricted Fire Risk" are, for the purpose of Regulation 20 of this Chapter, those rooms containing furniture and furnishings of restricted fire risk (whether cabins, public spaces, offices or other types of accommodation) in which—

(i) all case furniture such as desks, wardrobes, dressing tables, bureaux, dressers, is constructed entirely of approved non-combustible materials, except that a combustible veneer not exceeding 2 millimetres ($^1/_{12}$ inch) may be used on the working surface of such articles;

(ii) all free-standing furniture such as chairs, sofas, tables, is constructed with frames of non-combustible materials;

(iii) all draperies, curtains and other suspended textile materials have, to the satisfaction of the Administration, qualities of resistance to the propagation of flame not inferior to those of wool weighing 0,8 kilogrammes per square metre (24 ounces per square yard);

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(iv) alle vloerbedekkings tot bevrediging van die Administrasie weerstandseienskappe teen die verspreiding van vlamme het wat nie minder is as dié van 'n soortgelyke wolmateriaal wat vir dieselfde doel gebruik word nie; en

(v) alle blootgestelde oppervlaktes van beskotte, voerings en plafonne lae vlamverspreidingseienskappe het.

(t) "Beskotdek" is die heel boonste dek tot waar die waterdigte dwarsbeskotte opgetrek is.

(u) "Ladingsgewig" is die verskil in metrieke ton tussen die verplasing van 'n skip in water met 'n soortlike gewig van 1,025 by die waterlaslyn wat ooreenkom met die aangeduide somervryboord, en die liggewig van die skip.

(v) "Liggewig" is die verplasing van 'n skip in metrieke ton sonder vrag, brandstof, smeerolie, ballaswater, varswater en toevoerwater in tenks, verbruikbare voorrade, tesame met passasiers, en bemanning en hulle besittings.

(w) "Kombinasiedraer" is 'n tenkskip wat ontwerp is om olie, of so nie, soliede vragte, in grootmaat te vervoer.

REGULASIE 4

Brandbeheerplanne

In alle nuwe en bestaande skepe moet daar as handleiding vir die skeepsoffisiere permanent planne uitgestal word van die algemene uitleg wat duidelik vir elke dek aandui: die onderskeie brandseksies omsluit deur Klas "A"-verdelings, die seksies omsluit deur Klas "B"-verdelings (as daar is), tesame met besonderhede van brandalarms, verklikstelsels, die sproei-installasie (as daar is), die brandblusapparaat, toegangsweë tot die onderskeie kompartemente, dekke, ens. en die ventileringstelsel insluitend besonderhede aangaande die waaierbeheerposisies, die posisie van dempers en identifikasienommers van die ventileringswaaiers wat elke seksie bedien. As alternatief, na die oordeel van die Administrasie, kan voorgenoemde besonderhede in 'n boekie uiteengesit word, waarvan 'n kopie aan elke offisier uitgereik moet word en waarvan een kopie te alle tye aan boord op 'n toeganklike plek beskikbaar moet wees. Planne en boekies moet bygewerk word en enige wysigings moet so gou doenlik daarop aangebring word. Beskrywings op sodanige planne en in sodanige boekies moet in die landstaal wees. Indien die taal nie Engels of Frans is nie, moet daar 'n vertaling in een van hierdie twee tale ingesluit wees. Hierby moet instruksies vir die onderhoud en gebruik van alle toerusting en installasies aan boord vir die bestryding en afsluiting van brande in een band gehou word, maklik beskikbaar in 'n toeganklike posisie.

REGULASIE 5

Pompe, watertoevoerpype, brandkrane en brandslange

(a) *Totale vermoë van brandpompe.*

(i) In 'n passasierskip moet die vereiste brandpompe in staat wees om teen die toepaslike druk soos hieronder voorgeskryf, vir brandbestrydingsdoeleindes minstens twee derdes soveel water te lewer as wat die lenspompe moet behartig wanneer hulle vir lenspomping gebruik word.

(ii) In 'n vragskip moet die vereiste brandpompe, behalwe die noodpomp (as daar een is), in staat wees

(iv) all floor coverings have, to the satisfaction of the Administration, qualities of resistance to the propagation of flame not inferior to those of an equivalent woollen material used for the same purpose; and

(v) all exposed surfaces of bulkheads, lining and ceilings have low flamespread characteristics.

(t) "Bulkhead deck" is the uppermost deck up to which the transverse watertight bulkheads are carried.

(u) "Deadweight" is the difference in metric tons between the displacement of a ship in water of a specific gravity of 1,025 at the load water line corresponding to the assigned summer freeboard and the lightweight of the ship.

(v) "Lightweight" is the displacement of a ship in metric tons without cargo, fuel, lubricating oil, ballast water, fresh water and feedwater in tanks, consumable stores, together with passengers, and crew and their effects.

(w) "Combination carrier" is a tanker designed to carry oil or alternatively solid cargoes in bulk.

REGULATION 4

Fire control plans

There shall be permanently exhibited in all new and existing ships for the guidance of the ship's officers general arrangement plans showing clearly for each deck the control stations, the various fire sections enclosed by "A" Class divisions, the sections enclosed by "B" Class divisions (if any), together with particulars of the fire alarms, detecting systems, the sprinkler installation (if any), the fire-extinguishing appliances means of access to different compartments, decks, etc. and the ventilating system including particulars of the fan control positions, the position of dampers and identification numbers of the ventilating fans serving each section. Alternatively, at the discretion of the Administration, the aforementioned details may be set out in a booklet, a copy of which shall be supplied to each officer, and one copy at all times shall be available on board in an accessible position. Plans and booklets shall be kept up to date, any alterations being recorded thereon as soon as practicable. Description in such plans and booklets shall be in the national language. If the language is neither English nor French, a translation into one of those languages shall be included. In addition, instructions concerning the maintenance and operation of all the equipment and installations on board for the fighting and containment of fire shall be kept under one cover, readily available in an accessible position.

REGULATION 5

Fire pumps, fire mains, hydrants and hoses

(a) *Total capacity of fire pumps.*

(i) In a passenger ship, the required fire pumps shall be capable of delivering for fire-fighting purposes a quantity of water, at the appropriate pressure prescribed below, not less than two-thirds of the quantity required to be dealt with by the bilge pumps when employed for bilge pumping.

(ii) In a cargo ship, the required fire pumps, other than the emergency pump (if any), shall be capable

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

om teen die toepaslike voorgeskrewe druk, vir brandbestrydingsdoeleindes minstens vier derdes soveel water te lewer as wat ooreenkomstig Regulasie 18 van Hoofstuk II-1 deur elk van die onafhanklike lenspompe in 'n passasierskip van dieselfde afmetings behartig moet word wanneer hy vir lenspomping gebruik word; met dien verstande dat die totale vereiste vermoë van die brandpompe egter nie 180 ton per uur te bowe hoef te gaan nie.

(b) *Brandpompe.*

(i) Die brandpompe moet onafhanklik aangedryf word. Sanitêre-, ballas-, lens- of algemene dienspompe kan as brandpompe aanvaar word, mits hulle nie normaalweg vir die pomp van olie gebruik word nie en mits geskikte omskakelingsinrigtings aangebring is in gevalle waar hulle straks af en toe aangewend word om brandolie oor te voer of te pomp.

(ii) (1) By passasierskepe met meer as 36 passasiers moet elk van die vereiste brandpompe 'n kapasiteit hê van nie minder nie as 80 persent van die totale vereiste kapasiteit gedeel deur die minimum getal vereiste brandpompe, en elke sodanige pomp moet in elk geval in staat wees om minstens die vereiste twee strale water te lewer. Hierdie brandpompe moet in staat wees om die brandtoevoerstelsel in die vereiste toestande te voorsien.

Waar daar meer pompe as die vereiste minimum aantal geïnstalleer word, moet die kapasitiet van sodanige bykomende pompe tot bevrediging van die Administrasie wees.

(2) By alle ander soorte skepe moet elk van die vereiste brandpompe (behalwe 'n noodpomp wat ingevolge Regulasie 52 van hierdie Hoofstuk vereis word), 'n kapasiteit hê van minstens 80 persent van die totale vereiste vermoë gedeel deur die getal vereiste brandpompe en moet hulle in staat wees om die brandtoevoerstelsel in die vereiste toestande te voorsien. Waar daar meer pompe as die vereiste minimum aantal geïnstalleer word, moet die kapasiteit van sodanige bykomende pompe tot bevrediging van die Administrasie wees.

(iii) Alle brandpompe moet met ontlaskleppe toegerus word indien die pompe 'n groter druk kan ontwikkel as die ontwerpdruk van die watertoevoerpype, brandkrane en brandslange. Hierdie kleppe moet so geleë en ingestel wees dat oormatige druk in enige gedeelte van die hoofbrandnet voorkom sal word.

(c) *Druk in die hoofbrandpyp.*

(i) Die middellyn van die hoofbrandpyp en watertoevoerpype moet voldoende wees vir die doeltreffende verspreiding van die maksimum vereiste lewering uit twee brandpompe wat gelyktydig werk, maar in die geval van vragskepe hoef die deursnee slegs voldoende te wees vir die uitlating van 140 kubieke meter per uur.

(ii) Wanneer die twee pompe gelyktydig deur spuitstukke gespesifiseer in paragraaf (g) van hierdie Regulasie die hoeveelheid water vermeld in subparagraaf (i) van hierdie paragraaf deur aangrensende brandkrane lewer, moet die volgende minimum drukkings by alle brandkrane gehandhaaf word:

Passasierskepe:

4 000 ton bruto tonnemaat en meer	3,2 kilogram per vierkante sentimeter (45 pond per vierkante duim).
1 000 ton bruto tonnemaat en meer, maar minder as 4 000 ton bruto tonnemaat	2,8 kilogram per vierkante sentimeter (40 pond per vierkante duim).
Minder as 1 000 ton bruto tonnemaat	Tot tevredenheid van die Administrasie.

of delivering for fire-fighting purposes a quantity of water, at the appropriate pressure prescribed, not less than four-thirds of the quantity required under Regulation 18 of Chapter II—1 to be dealt with by each of the independent bilge pumps in a passenger ship of the same dimensions when employed on bilge pumping, provided that in no cargo ship need the total required capacity of the fire pumps exceed 180 cubic metres per hour.

(b) *Fire pumps.*

(i) The fire pumps shall be independently driven. Sanitary, ballast, bilge or general service pumps may be accepted as fire pumps, provided that they are not normally used for pumping oil and that if they are subject to occasional duty for the transfer or pumping of fuel oil, suitable change-over arrangements are fitted.

(ii) (1) In passenger ships carrying more than 36 passengers, each of the required fire pumps shall have a capacity not less than 80 per cent of the total required capacity divided by the minimum number of required fire pumps and each such pump shall in any event be capable of delivering at least the two required jets of water. These fire pumps shall be capable of supplying the fire main system under the required conditions.

Where more pumps than the minimum of required pumps are installed the capacity of such additional pumps shall be to the satisfaction of the Administration.

(2) In all other types of ships, each of the required fire pumps (other than any emergency pump required by Regulation 52 of this Chapter) shall have a capacity not less than 80 per cent of the total required capacity divided by the number of required fire pumps, and shall in any event be capable of supplying the fire main system under the required conditions.

Where more pumps than required are installed their capacity shall be to the satisfaction of the Administration.

(iii) Relief valves shall be provided in conjunction with all fire pumps if the pumps are capable of developing a pressure exceeding the design pressure of the water service pipes, hydrants and hoses. These valves shall be so placed and adjusted as to prevent excessive pressure in any part of the fire main system.

(c) *Pressure in the fire main.*

(i) The diameter of the fire main and water service pipes shall be sufficient for the effective distribution of the maximum required discharge from two fire pumps operating simultaneously, except that in the case of cargo ships the diameter need only be sufficient for the discharge of 140 cubic metres per hour.

(ii) With the two pumps simultaneously delivering through nozzles specified in paragraph (g) of this Regulation the quantity of water specified in subparagraph (i) of this paragraph, through any adjacent hydrants, the following minimum pressures shall be maintained at all hydrants:

Passenger ships:

4 000 tons gross tonnage and upwards	3,2 kilogrammes per square centimetre (45 pounds per square inch).
1 000 tons gross tonnage and upwards but under 4 000 tons gross tonnage	2,8 kilogrammes per square centimetres (40 pounds per square inch).
Under 1 000 tons gross tonnage	To the satisfaction of the Administration.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Vragskepe:

6 000 ton bruto tonnemaat en meer	2,8 kilogram per vierkante sentimeter (40 pond per vierkante duim).
1 000 ton bruto tonnemaat en meer, maar minder as 6 000 ton bruto tonnemaat	2,6 kilogram per vierkante sentimeter (37 pond per vierkante duim).
Minder as 1 000 ton bruto tonnemaat	Tot tevredenheid van die Administrasie.

(d) *Getal brandkrane en hul posisies.*

Die getal en posisies van brandkrane moet sodanig wees dat minstens twee strale water wat nie uit dieselfde brandkraan kom nie en waarvan een uit 'n enkele stuk slang afkomstig is, enige deel van die skip kan bereik wat normaalweg vir die passasiers of bemanning toeganklik is terwyl die skip besig is om te vaar.

(e) *Pype en brandkrane.*

(i) Materiaal wat geredelik deur hitte ondoeltreffend gemaak word, mag nie vir hoofbrandpype gebruik word nie, tensy dit behoorlik beskerm is. Die pype en brandkrane moet so geleë wees dat die brandslange maklik aan hulle gekoppel kan word. Op skepe waarin dekvrag vervoer kan word, moet die brandkrane so geleë wees dat hulle altyd geredelik toeganklik is en moet die pype vir sover doenlik so geplaas wees dat gevaar van beskadiging deur sodanige vrag vermy word. Tensy een brandslang en spuitstuk vir elke brandkraan op die skip verskaf word, moet daar volkome verwisselbaarheid van slangekoppelings en spuitstukke wees.

(ii) 'n Kraan of klep moet geïnstalleer wees om elke brandslang te bedien sodat enige brandslang verwyder kan word terwyl die brandpompe werk.

(f) *Brandslange.*

Brandslange moet van materiaal vervaardig wees wat deur die Administrasie goedgekeur is en moet lank genoeg wees om 'n straal water te spuit tot in enige van die ruimtes waarin dit nodig mag wees om hulle te gebruik. Hulle maksimum lengte moet die goedkeuring van die Administrasie wegdra. Elke slang moet met 'n spuitstuk en die nodige koppelinge toegerus wees. Slange wat in hierdie Hoofstuk as "brandslange" aangedui word, moet saam met die nodige toebehore en gereedskap, op opvallende plekke naby die watertoevoerbrandkrane of verbindings gereed vir gebruik gehou word. Hierby moet brandslange op passasierskepe met meer as 36 passasiers te alle tye aan die brandkrane gekoppel wees in die binneruimtes.

(g) *Spuitstukke.*

(i) Vir die doeleindes van hierdie Hoofstuk moet die standaardgroottes van spuitstukke 12 millimeter (½ duim), 16 millimeter (⅝ duim) en 19 millimeter (¾ duim) of so na as moontlik daaraan wees. Spuitstukke met 'n groter deursnee kan na goeddunke deur die Administrasie toegelaat word.

(ii) Vir akkommodasie- en diensruimtes is dit nie nodig om 'n spuitstuk met 'n deursnee van meer as 12 millimeter (½ duim) te gebruik nie.

(iii) Vir masjinerieruimtes en buiteplekke moet die grootte van die spuitstukke sodanig wees dat daar vanaf die kleinste pomp die groots moontlike hoeveelheid water deur twee strale teen die drukking vermeld in paragraaf (c) van hierdie Regulasie gelewer sal word; met dien verstande dat 'n spuitstukgrootte van meer as 19 millimeter (¾ duim) nie gebruik hoef te word nie.

Cargo ships:

6 000 tons gross tonnage and upwards	2,8 kilogrammes per square centimetre (40 pounds per square inch).
1 000 tons gross tonnage and upwards but under 6 000 tons gross tonnage	2,6 kilogrammes per square centimetre (37 pounds per square inch).
Under 1 000 tons gross tonnage	To the satisfaction of the Administration.

(d) *Number and position of hydrants.*

The number and position of the hydrants shall be such that at least two jets of water not emanating from the same hydrant, one of which shall be from a single length of hose, may reach any part of the ship normally accessible to the passengers or crew while the ship is being navigated.

(e) *Pipes and hydrants.*

(i) Materials readily rendered ineffective by heat shall not be used for fire mains and hydrants unless adequately protected. The pipes and hydrants shall be so placed that the fire hoses may be easily coupled to them. In ships where deck cargo may be carried, the positions of the hydrants shall be such that they are always readily accessible and the pipes shall be arranged as far as practicable to avoid risk of damage by such cargo. Unless there is provided one hose and nozzle for each hydrant in the ship, there shall be complete interchangeability of hose couplings and nozzles.

(ii) A cock or valve shall be fitted to serve each fire hose so that any fire hose may be removed while the fire pumps are at work.

(f) *Fire hoses.*

Fire hoses shall be of material approved by the Administration and sufficient in length to project a jet of water to any of the spaces in which they may be required to be used. Their maximum length shall be to the satisfaction of the Administration. Each hose shall be provided with a nozzle and the necessary couplings. Hoses specified in this Chapter as "fire hoses" shall together with any necessary fittings and tools be kept ready for use in conspicuous positions near the water service hydrants or connections. Additionally in interior locations in passenger ships carrying more than 36 passengers, fire hoses shall be connected to the hydrants at all times.

(g) *Nozzles.*

(i) For the purposes of this Chapter, standard nozzle sizes shall be 12 millimetres (½ inch), 16 millimetres (⅝ inch) and 19 millimetres (¾ inch) or as near thereto as possible. Larger diameter nozzles may be permitted at the discretion of the Administration.

(ii) For accommodation and service spaces, a nozzle size greater than 12 millimetres (½ inch) need not be used.

(iii) For machinery spaces and exterior locations, the nozzle size shall be such as to obtain the maximum discharge possible from two jets at the pressure mentioned in paragraph (c) of this Regulation from the smallest pump, provided that a nozzle size greater than 19 millimetres (¾ inch) need not be used.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(iv) Vir masjinerieruimtes of in dergelike ruimtes waar die risiko van oliestorting bestaan, moet die spuitstukke geskik wees vir die spuit van water op olie, of anders moet hulle van die dubbeldoeltipe wees.

(h) *Internasionale landaansluiting.*

Die standaardafmeting van flense vir die internasionale landaansluiting wat ingevolge hierdie Hoofstuk op die skip geïnstalleer moet word, moet met die volgende tabel strook:

Beskrywing	Grootte
Buitedeursnee.....	178 millimeter (7 duim).
Binnedeursnee.....	64 millimeter (2½ duim).
Boutsirkeldeursnee.	132 millimeter (5¼ duim).
Gleuwe in flens....	4 gate 19 millimeter (¾ duim) in deursnee ewe ver van mekaar gespasieer op 'n boutsirkel van bogenoemde omvang, gegleuf tot by die flensperiferie.
Flensdikte.....	14,5 millimeter (9/16 duim) minimum.
Boute en moere....	4, elk 16 millimeters (⅝ duim) dik en 50 millimeter (2 duim) lank.

Die koppelstuk moet vervaardig wees van materiaal wat geskik is vir gebruik onder 'n drukking van 10,5 kilogram per vierkante sentimeter (150 pond per vierkante duim). Die flens moet aan die een kant plat wees en aan die ander kant 'n permanente bevestigde koppeling hê wat op die skip se brandkraan en -slang pas. Die koppelstuk, tesame met 'n pakstuk van materiaal wat geskik is om gebruik te word onder 'n drukking van 10,5 kilogram per vierkante sentimeter (150 pond per vierkante duim), asook vier boute van 16 millimeter (⅝ duim) dik en 50 millimeter (2 duim) lank en agt wasters moet aan boord van die skip gehou word.

REGULASIE 6

Algemene items

(a) Indien elektriese verwarmers gebruik word, moet hulle vas geïnstalleer wees op 'n wyse wat brandrisiko tot 'n minimum sal beperk. Sodanige verwarmers mag nie 'n element hê wat so blootgestel is dat klerasie, gordyne en ander dergelike stowwe geskroei kan word of aan die brand kan raak van die element se hitte nie.

(b) Films met 'n sellulose-nitraatbasis mag nie vir kinematografiese installasies gebruik word nie.

REGULASIE 7

Brandblussers

(a) Alle brandblussers moet van goedgekeurde tipes en ontwerpe wees.

(i) Die inhoudsvermoë van vereiste draagbare vloeistofblussers moet hoogstens 13½ liter (3 gelling) en minstens 9 liter (2 gelling) wees. Ander blussers moet nie die ekwivalente draagbaarheid van die vloeistofblusser van 13½ liter (3 gelling) oorskry nie en hul blusvermoë moet nie minder wees as die brandblus-ekwivalent van 'n vloeistofblusser van 9 liter (2 gelling) nie.

(ii) Die Administrasie moet die ekwivalente van brandblussers bepaal.

(iv) For machinery spaces or in similar spaces where the risk of spillage of oil exists, the nozzles shall be suitable for spraying water on oil or alternatively shall be of a dual purpose type.

(h) *International shore connection.*

Standard dimensions of flanges for the international shore connection required in this Chapter to be installed in the ship shall be in accordance with the following table:

Description	Dimension
Outside diameter...	178 millimetres (7 inches).
Inner diameter.....	64 millimetres (2½ inches).
Bolt circle diameter	132 millimetres (5¼ inches).
Slots in flange.....	4 holes 19 millimetres (¾ inch) in diameter equidistantly placed on a bolt circle of the above diameter, slotted to the flange periphery.
Flange thickness....	14,5 millimetres(9/16 inch) minimum.
Bolts and nuts.....	4, each of 16 millimetres (⅝ inch) diameter, 50 millimetres (2 inches) in length.

The connection shall be constructed of material suitable for 10,5 kilogrammes per square centimetre (150 pounds per square inch) service. The flange shall have a flat face on one side and the other shall have permanently attached thereto a coupling that will fit the ship's hydrant and hose. The connection shall be kept aboard the ship together with a gasket of any material suitable for 10,5 kilogrammes per square centimetre (150 pounds per square inch) service, together with four 16 millimetre (⅝ inch) bolts, 50 millimetres (2 inches) in length and eight washers.

REGULATION 6

Miscellaneous items

(a) Electric radiators, if used, shall be fixed in position and so constructed as to reduce fire risks to a minimum. No such radiators shall be fitted with an element so exposed that clothing, curtains, or other similar materials can be scorched or set on fire by heat from the element.

(b) Cellulose-nitrate based films shall not be used for cinematograph installations.

REGULATION 7

Fire extinguishers

(a) All fire extinguishers shall be of approved types and designs.

(i) The capacity of required portable fluid extinguishers shall be not more than 13,5 litres (3 gallons) and not less than 9 litres (2 gallons). Other extinguishers shall not be in excess of the equivalent portability of the 13,5 litre (3 gallons) fluid extinguisher and shall not be less than the fire-extinguishing equivalent of a 9 litre (2 gallons) fluid extinguisher.

(ii) The Administration shall determine the equivalents of fire extinguishers.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(b) Reserweladings moet voorsien word ooreenkomstig die vereistes wat deur die administrasie gespesifiseer moet word.

(c) Brandblussers wat 'n blusmiddel bevat wat na die mening van die Administrasie òf op sigself òf in verwagte gebruikstoestande giftige gas in so 'n mate vrystel dat dit mense in gevaar stel, mag nie toegelaat word nie.

(d) 'n Draagbare skuimaanwendingseenheid moet bestaan uit 'n induktor-tipe lug-skuimspuitstuk wat deur middel van 'n brandslang aan die brandtoevoerpyp gekonnekteer kan word, tesame met 'n draagbare tenk met minstens 20 liter (4½ gelling) skuimmiddel en een reserwetenk. Die spuitstuk moet in staat wees om doeltreffende skuim wat geskik is om oliebrande te blus, teen 'n tempo van minstens 1,5 kubieke meter (53 kubieke voet) per minuut te spuit.

(e) Brandblussers moet periodiek ondersoek en aan sodanige toetse onderwerp word as wat die Administrasie vereis.

(f) Een van die draagbare brandblussers wat vir gebruik in 'n ruimte bedoel is, moet naby die ingang na daardie ruimte gebêre word.

REGULASIE 8

Vaste gas-brandblusstelsels

(a) Die gebruik van 'n brandblusmiddel wat na die mening van die Administrasie òf op sigself òf in verwagte gebruikstoestande giftige gas in so 'n mate vrystel dat dit mense in gevaar stel, mag nie toegelaat word nie.

(b) Waar daar voorsiening gemaak word vir die inspuiting van gas vir brandblusdoeleindes, moet die nodige pype vir die toevoer van die gas voorsien wees van kontrolekleppe en krane wat so gemerk is dat dit duidelik is na watter kompartemente die pype loop. Geskikte voorsiening moet gemaak word om te verhoed dat die gas per ongeluk in enige afdeling vrygestel word. Waar 'n vragruimte wat met sodanige brandbeskermingstelsel toegerus is as passasiersruimte gebruik word, moet die gasaansluiting vir die duur van sodanige benutting afgedig wees.

(c) Die pype moet so ingerig wees dat die brandblussingsgas doeltreffend versprei sal word.

(d) (i) Wanneer kooldioksied as die blusmiddel in vragruimtes gebruik word, moet voldoende gas beskikbaar wees om vrye gas te lewer met 'n volume gelyk aan minstens 30 persent van die bruto volume van die grootste vragafdeling in die skip wat verseëlbaar is.

(ii) Wanneer kooldioksied gebruik word as 'n blusmiddel vir masjinerieruimtes van Kategorie A, moet die hoeveelheid beskikbare gas voldoende wees om 'n hoeveelheid vrye gas te lewer wat gelyk is aan minstens die grootste van die volgende hoeveelhede, naamlik:

(1) 40 persent van die bruto volume van die grootste ruimte, en hierdie volume moet die hulsel insluit tot op die hoogte waar die horisontale oppervlakte van die hulsel 40 persent of minder is van diè van die betrokke ruimte gemeet vanaf halfpad tussen die tenk se bokant en die laagste deel van die hulsel; of

(2) 35 persent van die hele volume van die grootste ruimte met inbegrip van die hulsel:

(b) Spare charges shall be provided in accordance with requirements to be specified by the Administration.

(c) Fire extinguishers containing an extinguishing medium which, in the opinion of the Administration, either by itself or under expected conditions of use gives off toxic gases in such quantities as to endanger persons shall not be permitted.

(d) A portable froth applicator unit shall consist of an inductor type of airfroth nozzle capable of being connected to the fire main by a fire hose, together with a portable tank containing at least 20 litres (4½ gallons) of froth-making liquid and one spare tank. The nozzle shall be capable of producing effective froth suitable for extinguishing an oil fire, at the rate of at least 1,5 cubic metres (53 cubic feet) per minute.

(e) Fire extinguishers shall be periodically examined and subjected to such tests as the Administration may require.

(f) One of the portable fire extinguishers intended for use in any space shall be stowed near the entrance to that space.

REGULATION 8

Fixed gas fire-extinguishing systems

(a) The use of a fire-extinguishing medium which, in the opinion of the Administration, either by itself or under expected conditions of use gives off toxic gases in such quantities as to endanger persons shall not be permitted.

(b) Where provision is made for the injection of gas for fire-extinguishing purposes, the necessary pipes for conveying the gas shall be provided with control valves or cocks so marked as to indicate clearly the compartments to which the pipes are led. Suitable provision shall be made to prevent inadvertent admission of the gas to any compartment. Where cargo spaces fitted with such a system for fire protection are used as passenger spaces the gas connection shall be blanked during such use.

(c) The piping shall be arranged so as to provide effective distribution of fire-extinguishing gas.

(d) (i) When carbon dioxide is used as the extinguishing medium in cargo spaces, the quantity of gas available shall be sufficient to give a minimum volume of free gas equal to 30 per cent of the gross volume of the largest cargo compartment in the ship which is capable of being sealed.

(ii) When carbon dioxide is used as an extinguishing medium for machinery spaces of Category A the quantity of gas carried shall be sufficient to give a minimum quantity of free gas equal to the larger of the following quantities, either—

(1) 40 per cent of the gross volume of the largest space, the volume to include the casing up to the level at which the horizontal area of the casing is 40 per cent or less of the horizontal area of the space concerned taken midway between the tank top and the lowest part of the casing; or

(2) 35 per cent of the entire volume of the largest space including the casing:

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Met dien verstande dat bovermelde persentasies verminder kan word tot onderskeidelik 35 persent en 30 persent vir vragskepe van minder as 2 000 ton bruto tonnemaat: Met dien verstande voorts dat indien twee of meer masjinerieruimtes van Kategorie A nie geheel en al afsonderlik van mekaar is nie, hulle geag word een afdeling uit te maak.

(iii) Waar die volume vrye lug in lugvergaartenks binne enige masjinerieruimte van Kategorie A sodanig is dat dit, indien dit tydens 'n brand in so 'n ruimte vrygelaat word, die doeltreffendheid van die vaste brandblusinstallasie ernstig sal raak, moet die Administrasie die voorsiening van 'n bykomende hoeveelheid kooldioksied vereis.

(iv) Wanneer kooldioksied gebruik word as die blusmiddel vir vragruimtes en vir masjinerieruimtes van Kategorie A, hoef die hoeveelheid gas nie meer te wees as die maksimum wat vir die grootste vragruimte of masjinerieruimtes vereis word nie.

(v) Vir die doeleindes van hierdie paragraaf moet die volume van die kooldioksied bereken word teen 0,56 kubieke meter in 'n kilogram (9 kubieke voet per pond).

(vi) Wanneer kooldioksied gebruik word as die blusmiddel vir masjinerieruimtes van Kategorie A, moet die vaste toevoerstelsel sodanig wees dat 85 persent van die gas binne 2 minute in die ruimte vrygestel kan word.

(vii) Kamers vir die berging van kooldioksiedhouers moet op 'n veilige en maklik bereikbare plek wees en moet doeltreffend geventileer wees tot bevrediging van die Administrasie. Enige ingang tot sodanige bergingskamer moet verkieslik op die oop dek wees, en moet in elk geval afgesonder wees van die ruimte wat beskerm word. Toegangsdeure moet gasdig wees en beskotte en dekke wat grense van sodanige kamers vorm, moet gasdig en toereikend geïsoleer wees.

(e) (i) Waar ander gas as kooldioksied of stoom soos toegelaat ooreenkomstig paragraaf (f) van hierdie regulasie, op die skip geproduseer en as blusmiddel gebruik word, moet dit 'n gasproduk van brandstofverbranding wees waarvan die suurstofinhoud, die koolstofmonoksiedinhoud, die korrosie-elemente en enige soliede brandbare elemente tot 'n toelaatbare minimum verminder is.

(ii) Waar sodanige gas gebruik word as die blusmiddel in 'n vaste brandblusstelsel vir die beskerming van masjinerieruimtes van Kategorie A, moet dit beskerming verleen wat gelykstaan met dié van 'n vaste kooldioksiedstelsel.

(iii) Waar sodanige gas gebruik word as die blusmiddel in 'n vaste brandblusstelsel vir die beskerming van vragruimtes, moet 'n voldoende hoeveelheid van sodanige gas beskikbaar wees om uurliks 'n volume gas ten minste gelyk aan 25 persent van die bruto volume van die grootste kompartement wat op hierdie wyse beskerm word, vir 'n tydperk van 72 uur.

(f) Normaalweg moet die Administrasie nie die gebruik van stoom as 'n brandblusmiddel in vaste brandblusstelsels van nuwe skepe toelaat nie. Waar die Administrasie wel die gebruik van stoom toelaat, kan dit net in beperkte gebiede as bykomend tot die vereiste brandblusmiddel gebruik word op voorwaarde dat die beskikbare ketel of ketels wat die stoom voorsien, 'n verdamping moet hê van minstens 1 kilogram stoom per uur vir elke 0,75 kubieke meter (1 pond stoom per uur per 12 kubieke voet) van die bruto volume

Provided that the above-mentioned percentages may be reduced to 35 per cent and 30 per cent respectively for cargo ships of less than 2 000 tons gross tonnage; provided also that if two or more machinery spaces of Category A are not entirely separate they shall be considered as forming one compartment.

(iii) Where the volume of free air contained in air receivers in any machinery space of Category A is such that, if released in such space in the event of fire, such release of air within that space would seriously affect the efficiency of the fixed fire-extinguishing installation, the Administration shall require the provision of an additional quantity of carbon dioxide.

(iv) When carbon dioxide is used as an extinguishing medium both for cargo spaces and for machinery spaces of Category A the quantity of gas need not be more than the maximum required either for the largest cargo compartment or machinery space.

(v) For the purpose of this paragraph the volume of carbon dioxide shall be calculated at 0,56 cubic metres to the kilogramme (9 cubic feet to the pound).

(vi) When carbon dioxide is used as the extinguishing medium for machinery spaces of Category A the fixed piping system shall be such that 85 per cent of the gas can be discharged into the space within 2 minutes.

(vii) Carbon dioxide bottle storage rooms shall be situated at a safe and readily accessible position and shall be effectively ventilated to the satisfaction of the Administration. Any entrance to such storage rooms shall preferably be from the open deck, and in any case shall be independent of the protected space. Access doors shall be gastight and bulkheads and decks which form the boundaries of such rooms shall be gastight and adequately insulated.

(e) (i) Where gas other than carbon dioxide or steam as permitted by paragraph (f) of this Regulation is produced on the ship and is used as an extinguishing medium, it shall be a gaseous product of fuel combustion in which the oxygen content, the carbon monoxide content, the corrosive elements and any solid combustible elements have been reduced to a permissible minimum.

(ii) Where such gas is used as the extinguishing medium in a fixed fire-extinguishing system for the protection of machinery spaces of Category A it shall afford protection equivalent to that provided by a fixed carbon dioxide system.

(iii) Where such gas is used as the extinguishing medium in a fixed fire-extinguishing system for the protection of cargo spaces a sufficient quantity of such gas shall be available to supply hourly a volume of free gas at least equal to 25 per cent of the gross volume of the largest compartment protected in this way for a period of 72 hours.

(f) In general, the Administration shall not permit the use of steam as a fire-extinguishing medium in fixed fire-extinguishing systems of new ships. Where the use of steam is permitted by the Administration it shall be used only in restricted areas as an addition to the required fire-extinguishing medium and with the proviso that the boiler or boilers available for supplying steam shall have an evaporation of at least 1 kilogramme of steam per hour for each 0,75 cubic metres (1 pound of steam per hour per 12 cubic feet) of the gross volume of the largest space so protected.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

van die grootste sodanige beskermde ruimte. Behalwe om aan die voorgaande vereistes te voldoen, moet die stelsels in alle opsigte wees soos bepaal deur en tot bevrediging van die Administrasie.

(g) Middele moet voorsien word wat outomaties hoorbare waarskuwing gee ten opsigte van die vrystelling van brandblussingsgas in enige ruimte waartoe die personeel normaalweg toegang het. Die alarm moet vir 'n geskikte tydperk werk voordat die gas vrygelaat word.

(h) Die kontroles van enige sodanige gas-brandblussingstelsel moet maklik bereikbaar wees en eenvoudig om mee te werk, en moet op so min plekke as moontlik saamgegroepeer wees in posisies wat waarskynlik nie deur 'n brand in die beskermende ruimte afgesny sal word nie.

REGULASIE 9

Vaste skuim-brandblussingstelsel in masjinerieruimtes

(a) Elke vereiste vaste skuim-brandblussingstelsel in masjinerieruimtes moet in staat wees om deur vaste uitlaatpunte binne hoogstens vyf minute 'n genoegsame hoeveelheid skuim vry te stel om die grootste enkele area waaroor oliebrandstof waarskynlik kan sprei, tot 'n diepte van 150 millimeter (6 duim) te bedek. Die stelsel moet in staat wees om skuim te maak wat geskik is vir die blus van oliebrande. Middele moet voorsien word vir die doeltreffende verspreiding deur 'n permanente pypstelsel en kontrolekleppe en krane na geskikte uitlaatpunte, en vir die skuim om doeltreffend deur vaste sproeiers gerig te word op ander belangrike brandgevare binne die beskermende ruimte. Die uitsettingsverhouding van die skuim moet nie 12 tot 1 oorskry nie.

(b) Die kontroles van enige sodanige stelsels moet maklik bereikaar wees en eenvoudig om mee te werk, en moet op so min plekke as moontlik saamgegroepeer wees in posisies wat nie waarskynlik deur 'n brand in die beskermde ruimte afgesny sal word nie.

REGULASIE 10

Vaste sterkskuimende brandblusstelsels in masjinerieruimtes

(a) (i) Enige vereiste vaste sterkskuimende stelsel in masjinerieruimtes moet in staat wees om vinnig deur vaste uitlaatpunte 'n hoeveelheid skuim vry te stel wat genoeg is om die grootste beskermde ruimte te vul teen 'n tempo van minstens 1 meter (3,3 voet) diep per minuut. Die beskikbare hoeveelheid skuimvormende vloeistof moet genoeg wees om 'n volume skuim te produseer gelyk aan vyf maal die volume van die grootste ruimte wat beskerm moet word. Die uitsettingsverhouding van die skuim moet nie 1 000 tot 1 oorskry nie.

(ii) Die Administrasie kan alternatiewe maatreëls en uitlaattempo's toelaat, solank hy tevrede is dat dit gelykwaardige beskerming bied.

(b) Toevoerleidings vir die lewering van skuim, luginlate na die skuimopwekker en die aantal skuimproduserende eenhede moet sodanig wees dat dit na die mening van die Administrasie doeltreffende skuimproduksie en -verspreiding sal lewer.

(c) Die uitleg van die leweringsleiding van die skuimopwekker moet sodanig wees dat dit nie die skuimproduserende toerusting sal raak ingeval van 'n brand in die beskermde ruimte nie.

In addition to complying with the foregoing requirements the systems in all respects shall be as determined by, and to the satisfaction of the Administration.

(g) Means shall be provided for automatically giving audible warning of the release of fire-extinguishing gas into any space to which personnel normally have access. The alarm shall operate for a suitable period before the gas is released.

(h) The means of control of any such fixed gas fire-extinguishing system shall be readily accessible and simple to operate and shall be grouped together in as few locations as possible at positions not likely to be cut off by a fire in the protected space.

REGULATION 9

Fixed froth fire-extinguishing systems in machinery spaces

(a) Any required fixed froth fire-extinguishing system in machinery spaces shall be capable of discharging through fixed discharge outlets in not more than five minutes, a quantity of froth sufficient to cover to a depth of 150 millimetres (6 inches) the largest single area over which oil fuel is liable to spread. The system shall be capable of generating froth suitable for extinguishing oil fires. Means shall be provided for effective distribution of the froth through a permanent system of piping and control valves or cocks to suitable discharge outlets, and for the froth to be effectively directed by fixed sprayers on other main fire hazards in the protected space. The expansion ratio of the froth shall not exceed 12 to 1.

(b) The means of control of any such systems shall be readily accessible and simple to operate and shall be grouped together in as few locations as possible at positions not likely to be cut off by a fire in the protected space.

REGULATION 10

Fixed high expansion froth fire-extinguishing systems in machinery spaces

(a) (i) Any required fixed high expansion froth system in machinery spaces shall be capable of rapidly discharging through fixed discharge outlets a quantity of froth sufficient to fill the greatest space to be protected at a rate of at least 1 metre (3,3 feet) in depth per minute. The quantity of froth-forming liquid available shall be sufficient to produce a volume of froth equal to five times the volume of the largest space to be protected. The expansion ratio of the froth shall not exceed 1 000 to 1.

(ii) The Administration may permit alternative arrangements and discharge rates provided that it is satisfied that equivalent protection is achieved.

(b) Supply ducts for delivering froth, air intakes to the froth generator and the number of froth-producing units shall in the opinion of the Administration be such as will provide effective froth production and distribution.

(c) The arrangement of the froth generator delivery ducting shall be such that a fire in the protected space will not affect the froth-generating equipment.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(d) Die skuimopwekker, sy kragtoevoerbronne, die skuimmiddel en die middele om die stelsel te beheer moet maklik bereikbaar wees en eenvoudig om te gebruik, en moet op so min plekke as moontlik saamgegroepeer wees in posisies wat onwaarskynlik deur 'n brand in die beskermde ruimte afgesny sal word.

REGULASIE 11

Vaste drukwater-brandblussproeistelsels in masjinerieruimtes

(a) Elke vereiste vaste drukwater-brandblussproeistelsel in masjinerieruimtes moet toegerus wees met spuitstukke van 'n goedgekeurde tipe.

(b) Die getal en plasing van die spuitstukke moet die Administrasie se goedkeuring wegdra en moet sodanig wees dat dit 'n doeltreffende algemene verspreiding van water verseker teen minstens 5 liter per vierkante meter (0,1 gelling per vierkante voet) per minuut in die beskermde ruimte. Waar verhoogde toedieningstempo's noodsaaklik geag word, moet hulle tot bevrediging van die Administrasie wees. Spuitstukke moet aangebring word bokant kimme, tenktoppe en ander oppervlaktes waaroor oliebrandstof kan versprei en ook bokant ander spesifieke brandgevaarplekke in die masjinerieruimtes.

(c) Die stelsel kan verdeel word in seksies waarvan die verdeelspruitpype vanaf maklik toeganklike plekke buitekant die ruimtes wat beskerm moet word, bedien moet word en wat nie geredelik deur die uitbreek van 'n brand afgesny sal word nie.

(d) Die stelsel moet onder die nodige druk gelaai gehou word en die pomp wat die water vir die stelsel verskaf, moet by 'n drukverlaging in die stelsel outomaties in werking kom.

(e) Die pomp moet in staat wees om gelyktydig onder die nodige druk alle seksies van die stelsel in 'n enkele afdeling wat beskerm moet word, van water te voorsien. Die pomp en sy beheermiddels moet geïnstalleer word buitekant die ruimte of ruimtes wat beskerm moet word. Die stelsel moet nie buite werking gestel kan word deur 'n brand in die ruimte of ruimtes wat deur die watersproeistelsel beskerm word nie.

(f) Die pomp kan aangedryf word deur onafhanklike binnebrand-tipe masjinerie, maar indien dit afhanklik is van krag vanaf die noodopwekker wat geïnstalleer is ooreenkomstig die bepalings van Regulasie 25 of Regulasie 26 van Hoofstuk II-1 van die huidige Konvensie, moet daardie opwekker ingerig wees om outomaties te begin werk ingeval van 'n hoofkragonderbreking, sodat krag wat vir die pomp vereis word ingevolge paragraaf (e) van hierdie regulasie onmiddellik beskikbaar is. Wanneer die pomp deur onafhanklike binnebrand-tipe masjinerie aangedryf word, moet dit so geplaas wees dat 'n brand in die beskermde ruimte nie die lugtoevoer na die masjinerie sal affekteer nie.

(g) Voorsorgmaatreëls moet getref word om te voorkom dat die sproeikoppe deur onsuiwerhede in die water of die verroesting van die pype, sproeikoppe, kleppe en pomp verstop word.

REGULASIE 12

Outomatiese sproeier- en brandalarm- en brandverklikstelsels

(a) (i) Elke vereiste outomatiese sproeier- en brandalarm- en brandverklikstelsel moet te eniger tyd gereed wees om dadelik te werk, en geen handeling van die bemanning moet nodig wees om dit te laat werk nie.

(d) The froth generator, its sources of power supply, froth-forming liquid and means of controlling the system shall be readily accessible and simple to operate and shall be grouped in as few locations as possible at positions not likely to be cut off by fire in the protected space.

REGULATION 11

Fixed pressure water-spraying fire-extinguishing systems in machinery spaces

(a) Any required fixed pressure water-spraying fire-extinguishing system in machinery spaces shall be provided with spraying nozzles of an approved type.

(b) The number and arrangement of the nozzles shall be to the satisfaction of the Administration and be such as to ensure an effective average distribution of water of at least 5 litres per square metre (0,1 gallon per square foot) per minute in the spaces to be protected. Where increased application rates are considered necessary, these shall be to the satisfaction of the Administration. Nozzles shall be fitted above bilges, tank tops and other areas over which oil fuel is liable to spread and also above other specific fire hazards in the machinery spaces.

(c) The system may be divided into sections, the distribution valves of which shall be operated from easily accessible positions outside the spaces to be protected and which will not be readily cut off by an outbreak of fire.

(d) The system shall be kept charged at the necessary pressure and the pump supplying the water for the system shall be put automatically into action by a pressure drop in the system.

(e) The pump shall be capable of simultaneously supplying at the necessary pressure all sections of the system in any one compartment to be protected. The pump and its controls shall be installed outside the space or spaces to be protected. It shall not be possible for a fire in the space or spaces protected by the water-spraying system to put the system out of action.

(f) The pump may be driven by independent internal combustion type machinery but if it is dependent upon power being supplied from the emergency generator fitted in compliance with the provisions of Regulation 25 or Regulation 26 as appropriate of Chapter II-1 of the present Convention that generator shall be arranged to start automatically in case of main power failure so that power for the pump required by paragraph (e) of this Regulation is immediately available. When the pump is driven by independent internal combustion type machinery it shall be so situated that a fire in the protected space will not affect the air supply to the machinery.

(g) Precautions shall be taken to prevent the nozzles from becoming clogged by impurities in the water or corrosion of piping, nozzles, valves and pump.

REGULATION 12

Automatic sprinkler and fire alarm and fire detection systems

(a) (i) Any required automatic sprinkler and fire alarm and fire detection system shall be capable of immediate operation at all times and no action by the crew shall be necessary to set it in operation. It shall be of the wet pipe type but small exposed sections may be of the dry pipe type where in the opinion of the Administration this is a necessary precaution.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Dit moet van die natpyp-tipe wees, maar klein blootgestelde gedeeltes kan van die droëpyp-tipe wees waar dit na die oordeel van die Adminstrasie 'n nodige voorsorgmaatreël is. Enige dele van die stelsel wat tydens diens aan verysing blootgestel mag word, moet paslik teen bevriesing beskerm word. Dit moet onder die nodige druk gelaai gehou word en daar moet voorsiening wees vir 'n standhoudende watervoorraad soos in hierdie regulasie vereis word.

(ii) Elke groep sproeiers moet van middele voorsien wees wat outomaties sigbare en hoorbare alarm maak by een of meer aanduidingseenhede sodra enige sproeier begin werk. Sodanige eenhede moet 'n aanduiding gee van enige brand en sy posisie binne enige ruimte wat deur die stelsel bedien word en moet op die navigasiebrug of die hoofbrandbeheerstasie gesentraliseer wees, wat sodanig beman of toegerus moet wees dat enige alarm vanuit die stelsel onmiddellik deur 'n verantwoordelike lid van die bemanning ontvang sal word. Sodanige alarmstelsels moet so ingerig wees dat hulle dit aandui as enige fout in die stelsel voorkom.

(b) (i) Sproeiers moet in afsonderlike seksies gegroepeer wees met hoogstens 200 sproeiers elk. Geen seksie sproeiers moet meer as twee dekke bedien of in meer as een vertikale sone geleë wees nie; behalwe dat 'n Administrasie wat oortuig daarvan is dat die beskerming van die skip teen brand nie daardeur verminder sal word nie, kan toelaat dat so 'n seksie sproeiers meer as twee dekke bedien of in meer as een hoof- vertikale sone gesitueer word.

(ii) Elke seksie sproeiers moet deur net een klep geïsoleer kan word. Die afsluitklep van elke seksie moet maklik bereikbaar wees en sy posisie moet duidelik en permanent aangedui word. Middele moet voorsien word wat enige ongemagtigde persoon sal verhinder om met die afsluitkleppe te werk.

(iii) 'n Meter wat die druk in die stelsel aandui moet by elke seksie se afsluitklep en in 'n sentrale stasie voorsien word.

(iv) Die sproeiers moet korrosiewerend wees in seelug. In akkommodasie- en diensruimtes moet die sproeiers in werking tree binne die temperatuurperke van 68 °C (155 °F) en 79 °C (175 °F), behalwe dat die werkingstemperatuur verhoog kan word met nie meer as 30 °C (54 °F) bo die maksimum deksolderingstemperatuur nie, in lokale soos droogkamers waar hoë omringende temperature verwag kan word.

(v) By elke aanduidingseenheid moet daar 'n lys of plan vertoon word wat ten opsigte van elke seksie die ruimtes wat gedek word en die ligging van die sone aandui. Geskikte instruksies vir toetsing en onderhoud moet beskikbaar wees.

(c) Sproeiers moet oorhoofs geplaas wees en in 'n geskikte patroon gerangskik wees om 'n gemiddelde aanwendingstempo van minstens 5 liter per vierkante meter (0,1 gelling per vierkante voet) vol te hou oor die nominale area wat deur die sproeiers gedek word. Andersins kan die Administrasie die gebruik toelaat van sproeiers wat sodanige ander hoeveelheid water en geskikte verspreiding toelaat as wat tot bevrediging van die Administrasie bewys is as nie minder doeltreffend nie.

(d) (i) 'n Druktenk met 'n volume gelyk aan minstens twee keer dié van die lading water gespesifiseer in hierdie subparagraaf moet voorsien word. Die tenk moet 'n vaste voorraad vars water bevat, gelykstaande

Any parts of the system which may be subjected to freezing temperatures in service shall be suitably protected against freezing. It shall be kept charged at the necessary pressure and shall have provision for a continuous supply of water as required in this Regulation.

(ii) 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 units shall give an indication of any fire and its location in any space served by the system and shall be centralized on the navigating bridge or in the main fire control station, which shall be so manned or equipped as to ensure that any alarm from the system is immediately received by a responsible member of the crew. Such alarm systems shall be constructed so as to indicate if any fault occurs in the system.

(b) (i) Sprinklers shall be grouped into separate sections, each of which shall contain not more than 200 sprinklers. Any section of sprinklers shall not serve more than two decks and shall not be situated in more than one main vertical zone, except that an Administration, if it is satisfied that the protection of the ship against fire will not thereby be reduced, may permit such a section of sprinklers to serve more than two decks or to be situated in more than one main vertical zone.

(ii) Each section of sprinklers shall be capable of being isolated by one stop valve only. The stop valve in each section shall be readily accessible and its location shall be clearly and permanently indicated. Means shall be provided to prevent the operation of the stop valves by any unauthorized person.

(iii) A gauge indicating the pressure in the system shall be provided at each section stop valve and at a central station.

(iv) The sprinklers shall be resistant to corrosion by marine atmospheres. In accommodation and service spaces the sprinklers shall come into operation within the temperature range of 68 °C (155 °F) and 79 °C (175 °F), except that in locations such as drying rooms, where high ambient temperatures might be expected, the operating temperature may be increased by not more than 30 °C (54 °F) above the maximum deck head temperature.

(v) A list or plan shall be displayed at each indicating unit showing the spaces covered and the location of the zone in respect of each section. Suitable instructions for testing and maintenance shall be available.

(c) Sprinklers shall be placed in an overhead position and spaced in a suitable pattern to maintain an average application rate of not less than 5 litres per square metre (0,1 gallon per square foot) per minute over the nominal area covered by the sprinklers. Alternatively, the Administration may permit the use of sprinklers providing such other amount of water suitably distributed as has been shown to the satisfaction of the Administration to be not less effective.

(d) (i) A pressure tank having a volume equal to at least twice that of the charge of water specified in this subparagraph shall be provided. The tank shall contain a standing charge of fresh water, equi-

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

met die hoeveelheid water wat binne een minuut gelewer sou word deur die pomp waarna verwys word in subparagraaf (e) (ii) van hierdie Regulasie, en die reëlings moet voorsiening maak vir die behoud van sodanige lugdruk in die tenk om te verseker dat waar die vaste voorraad vars water in die tenk gebruik is, die druk nie laer as die werksdruk van die sproeier sal wees nie, plus die druk as gevolg van 'n volume water gemeet vanaf die bodem van die tenk tot by die hoogste sproeier in die stelsel. Geskikte middele vir die aanvulling van die lug onder druk en van die varswatervoorraad in die tenk moet voorsien word. 'n Meetglas moet aangebring word om die korrekte watervlak in die tenk aan te dui.

(ii) Middele moet voorsien word wat verhoed dat seewater die tenk binnekom.

(e) (i) 'n Onafhanklike kragpomp moet voorsien word vir die uitsluitlike doel om outomaties die waterlewering as gevolg van die sproeiwerking aan te vul. Die pomp moet outomaties in werking gestel word deur 'n drukdaling in die stelsel voordat die vaste voorraad vars water in die tenk heeltemal uitgeput is.

(ii) Die pomp en die pypnetwerk moet in staat wees om die nodige druk op die vlak van die hoogste sproeier te behou om 'n voortdurende waterlewering toereikend vir die gelyktydige dekking van 'n minimum area van 280 vierkante meter (3 000 vierkante voet) vol te hou teen die toedieningstempo gespesifiseer in paragraaf (c) van hierdie Regulasie.

(iii) Die pomp moet aan sy leweringskant toegerus wees met 'n toetsklep met 'n kort oop uitlaatpyp. Die effektiewe oppervlakte deur die klep en pyp moet genoegsaam wees om die loslating van die vereiste pomplewering toe te laat terwyl dit die druk in die stelsel behou soos gespesifiseer in subparagraaf (d) (i) van hierdie Regulasie.

(iv) Die pomp se see-inlaat moet waar moontlik in die ruimte met die pomp wees en moet so ingerig wees dat wanneer die skip vlot is, dit nie nodig sal wees om die seewatertoevoer na die pomp af te sluit vir enige doel nie, behalwe vir die inspeksie of herstel van die pomp.

(f) Die sproeierpomp moet redelik ver van enige masjinerieruimte van Kategorie A geleë wees en moet nie geleë wees in enige ruimte wat deur die sproeierstelsel beskerm moet word nie.

(g) Daar moet minstens twee kragbronne wees vir die seewaterpomp en die outomatiese alarm- en verklikstelsel. Waar die kragbronne vir die pomp elektries is, moet hulle bestaan uit 'n hoofgenerator en 'n noodkragbron. Een toevoer na die pomp moet vanaf die hoofskakelbord kom en een vanaf die noodskakelbord langs afsonderlike voerleidings wat uitsluitlik vir dié doel gereserveer is.

Die voerleidings se plasing moet gange, masjinerieruimtes en ander omslote ruimtes met 'n hoë brandrisiko vermy behalwe vir sover dit die aangewese skakelborde moet bereik, en moet gekoppel wees aan 'n outomatiese oorskakelaar naby die sproeierpomp. Hierdie skakelaar moet die kragtoevoer vanaf die hoofskakelbord deurlaat solank dit daarvandaan beskikbaar is, en moet so ontwerp wees dat ingeval van 'n kragonderbreking daarvandaan dit outomaties sal oorskakel na die toevoer vanaf die noodskakelbord. Die skakelaars op die hoof- en die noodskakelbord moet duidelik gemerk wees en normaalweg toegehou word. Geen ander skakelaar moet in die betrokke voerleidings toegelaat word nie. Een van die kragbronne vir die alarm- en verklikstelsel moet 'n noodbron wees. Waar een van

valent to the amount of water which would be discharged in one minute by the pump referred to in subparagraph (e) (ii) of this Regulation, and the arrangements shall provide for maintaining such air pressure in the tank to ensure that where the standing charge of fresh water in the tank has been used the pressure will be not less than the working pressure of the sprinkler, plus the pressure due to a head of water measured from the bottom of the tank to the highest sprinkler in the system. Suitable means of replenishing the air under pressure and of replenishing the fresh water charge in the tank shall be provided. A glass gauge shall be provided to indicate the correct level of the water in the tank.

(ii) Means shall be provided to prevent the passage of sea water into the tank.

(e) (i) An independent power pump shall be provided solely for the purpose of continuing automatically the discharge of water from the sprinklers. The pump shall be brought into action automatically by the pressure drop in the system before the standing fresh water charge in the pressure tank is completely exhausted.

(ii) The pump and the piping system shall be capable of maintaining the necessary pressure at the level of the highest sprinkler to ensure a continuous output of water sufficient for the simultaneous coverage of a minimum area of 280 square metres (3 000 square feet) at the application rate specified in paragraph (c) of this Regulation.

(iii) The pump shall have fitted on the delivery side a test valve with a short open-ended discharge pipe. The effective area through the valve and pipe shall be adequate to permit the release of the required pump output while maintaining the pressure in the system specified in subparagraph (d) (i) of this Regulation.

(iv) The sea inlet to the pump shall wherever possible be in the space containing the pump and shall be so arranged that when the ship is afloat it will not be necessary to shut off the supply of sea water to the pump for any purpose other than the inspection or repair of the pump.

(f) The sprinkler pump and tank shall be situated in a position reasonably remote from any machinery space of Category A and shall not be situated in any space required to be protected by the sprinkler system.

(g) There shall be not less than two sources of power supply for the sea water pump and automatic alarm and detection system. Where the sources of power for the pump are electrical, these shall be a main generator and an emergency source of power. One supply for the pump shall be taken from the main switchboard, and one from the emergency switchboard by separate feeders reserved solely for that purpose.

The feeders shall be arranged so as to avoid galleys, machinery spaces and other enclosed spaces of high fire risk except in so far as it is necessary to reach the appropriate switchboards, and shall be run to an automatic change-over switch situated near the sprinkler pump. This switch shall permit the supply of power from the main switchboard so long as a supply is available therefrom, and be so designed that upon failure of that supply it will automatically change over to the supply from the emergency switchboard. The switches on the main switchboard and the emergency switchboard shall be clearly labelled and normally kept closed. No other switch shall be permitted in the feeders concerned. One of the sources of power supply for the alarm and detection system shall be an emer-

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

die kragbronne vir die pomp 'n binnebrandenjin is moet dit, afgesien daarvan om te voldoen aan die bepalings van paragraaf (f) van hierdie Regulasie, só geleë wees dat 'n brand in geen beskermde ruimte die lugtoevoer na die masjinerie sal belemmer nie.

(h) Die sproeierstelsel moet aan die skip se hoofbrandweerpyp gekoppel wees deur middel van 'n sluitbare vasskroef-terugslagklep by die aansluiting, wat terugvloei vanaf die sproeierstelsel na die hoofbrandweerpyp verhoed.

(i) (i) 'n Toetsklep moet voorsien word vir die toets van die outomatiese alarm vir elke seksie sproeiers deur die loslating van water gelyk aan dié van een sproeier. Die toetsklep vir elke seksie moet naby die afsluitklep van daardie seksie geleë wees.

(ii) Middele moet voorsien word vir die toets van die outomatiese werking van die pomp by 'n daling van die druk in die stelsel.

(iii) Skakelaars moet voorsien word by een van die aanduidingseenhede waarna in subparagraaf (a) (ii) van hierdie Regulasie verwys word, wat dit moontlik maak om die alarm en die aanduiders vir elke seksie sproeiers te toets.

(j) Noodspuitstukke moet vir elke seksie sproeiers voorsien word tot bevrediging van die Administrasie.

REGULASIE 13

Outomatiese brandalarm- en brandverklikstelsels

Vereistes ten opsigte van skepe met meer as 36 passasiers

(a) (i) Elke vereiste outomatiese brandalarm- en brandverklikstelsel moet te eniger tyd tot onmiddellike werking in staat wees en geen handeling van die bemanning moet nodig wees om dit te laat werk nie.

(ii) Elke seksie sproeiers moet van middele voorsien wees wat outomaties sigbare en hoorbare alarm maak by een of meer aanduidingseenhede sodra enige verklikker begin werk. Sodanige eenhede moet 'n aanduiding gee van enige brand en sy posisie binne enige ruimte wat deur die stelsel bedien word en moet op die navigasiebrug of die hoofbrandbeheerstasie gesentraliseer wees, wat sodanig beman of toegerus moet wees dat enige alarm vanuit die stelsel onmiddellik deur 'n verantwoordelike lid van die bemanning ontvang sal word. Sodanige alarmstelsels moet so ingerig wees dat hulle dit aandui as enige fout in die stelsel voorkom.

(b) Verklikkers moet in afsonderlike seksies gegroepeer wees sodat elk nie meer as 50 vertrekke dek wat deur die stelsel bedien word nie en nie meer as 100 verklikkers bevat nie. 'n Seksie verklikkers moet nie ruimtes aan beide die bakboord- en stuurboordkant van die skip of meer as een dek bedien nie, en moet ook nie in meer as een vertikale sone geleë wees nie: uitgesonderd dat 'n Administrasie wat daarvan oortuig is dat die beskerming van die skip teen brand nie daardeur verminder sal word nie, kan toelaat dat so 'n seksie verklikkers beide die bakboord- en die stuurboordkant van die skip bedien, asook meer as een dek.

(c) Die stelsel moet in werking gestel word deur 'n abnormale lugtemperatuur, deur 'n abnormale konsentrasie rook of deur ander faktore wat dui op die ontstaan van 'n brand in elk van die beskermde ruimtes. Stelsels wat vir lugtemperatuur sensitief is, moet by temperature van minstens 57 °C (135 °F) en hoogstens 74 °C (165 °F) in werking tree wanneer die temperatuurtoename tot by daardie vlakke nie meer as

gency source. Where one of the sources of power for the pump is an internal combustion-type engine it shall, in addition to complying with the provisions of paragraph (f) of this Regulation, be so situated that a fire in any protected space will not affect the air supply to the machinery.

(h) The sprinkler system shall have a connection from the ship's fire main by way of a lockable screw-down non-return valve at the connection which will prevent a backflow from the sprinkler system to the fire main.

(i) (i) A test valve shall be provided for testing the automatic alarm for each section of sprinklers by a discharge of water equivalent to the operation of one sprinkler. The test valve for each section shall be situated near the stop valve for that section.

(ii) Means shall be provided for testing the automatic operation of the pump, on reduction of pressure in the system.

(iii) Switches shall be provided at one of the indicating positions referred to in subparagraph (a) (ii) of this Regulation which will enable the alarm and the indicators for each section of sprinklers to be tested.

(j) Spare sprinkler heads shall be provided for each section of sprinklers to the satisfaction of the Administration.

REGULATION 13

Automatic fire alarm and fire detection systems

Requirements for passenger ships carrying more than 36 passengers

(a) (i) Any required automatic fire alarm and fire detection system shall be capable of immediate operation at all times and no action of the crew shall be necessary to set it in operation.

(ii) Each section of detectors shall include means for giving a visual and audible alarm signal automatically at one or more indicating units whenever any detector comes into operation. Such units shall give an indication of any fire and its location in any space served by the system and shall be centralized on the navigating bridge or in the main fire control station which shall be so manned or equipped as to ensure that any alarm from the system is immediately received by a responsible member of the crew. Such alarm system shall be constructed so as to indicate if any fault occurs in the system.

(b) Detectors shall be grouped into separate sections each covering not more than 50 rooms served by such a system and containing not more than 100 detectors. A section of detectors shall not serve spaces on both the port and starboard sides of the ship nor on more than one deck and neither shall it be situated in more than one main vertical zone except that the Administration, if it is satisfied that the protection of the ship against fire will not thereby be reduced, may permit such a section of detectors to serve both the port and starboard sides of the ship and more than one deck.

(c) The system shall be operated by an abnormal air temperature, by an abnormal concentration of smoke or by other factors indicative of incipient fire in any one of the spaces to be protected. Systems which are sensitive to air temperature shall not operate at less than 57 °C (135 °F) and shall operate at a temperature not greater than 74 °C (165 °F) when the temperature increase to those levels is not more than 1 °C

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

1 °C (1,8 °F) is. Na goeddunke van die Administrasie kan die toelaatbare werkingstemperatuur verhoog word tot 30 °C (54 °F) bo die maksimum deksolderingstemperatuur in droogkamers en soortgelyke plekke met 'n hoë omringende temperatuur. Stelsels wat sensitief is vir rookkonsentrasie moet in werking tree by die vermindering van die intensiteit van 'n uitgesende ligstraal ooreenkomstig 'n hoeveelheid wat die Administrasie vasstel. Ander ewe doeltreffende werkingsmetodes kan na goeddunke van die Administrasie aanvaar word. Die verklikstelsel moet vir geen ander doel as brandopsporing aangewend word nie.

(d) Die verklikkers kan ingerig wees om die alarm in werking te stel deur die oop- en toemaak van kontakpunte of op ander geskikte wyses. Hulle moet in 'n oorhoofse posisie aangebring word en beskerm wees teen stampe en fisiese skade. Hulle moet geskik wees vir gebruik in seelug. Hulle moet in 'n oop posisie geplaas wees, weg van balke en ander objekte wat waarskynlik die vloei van warm gasse of rook na die sensitiewe element kan belemmer. Verklikkers wat deur die oop- en toemaak van kontakpunte werk, moet van die verseëlde kontaktipe wees en die baan moet deurentyd gemonitor word om foute aan te toon.

(e) Minstens een verklikker moet geïnstalleer word in elke ruimte waar verklikfasiliteite vereis word en daar moet minstens een verklikker wees vir elke 37 vierkante meter (400 vierkante voet) dekoppervlakte. In groot ruimtes moet die verklikkers sodanig in 'n vaste patroon gerangskik wees dat geen verklikker meer as 9 meter (30 voet) van 'n ander is of verder as 4,5 meter (15 voet) van 'n beskot af nie.

(f) Daar moet minstens twee kragbronne wees vir die elektriese toerusting wat vir die werking van die brandalarm- en brandverklikstel gebruik word, waarvan een 'n noodbron moet wees. Die toevoer moet voorsien word deur afsonderlike voerleidings wat net vir daardie doel gereserveer is. Sodanige voerleidings moet na 'n oorskakelaar loop wat in die beheerpos van die brandverklikstelsel geleë is. Die bedradingstelsel moet ingerig wees om gange, masjinerieruimtes en ander omslote ruimtes met 'n hoë brandrisiko te vermy, behalwe vir sover dit nodig is om die brandverklikking in sulke ruimtes te voorsien of om die aangewese skakelbord te bereik.

(g) (i) Langs elke aanduidingseenheid moet daar 'n lys of plan vertoon word wat die ruimtes wat gedek word en die ligging van die sone ten opsigte van elke seksie aandui. Geskikte instruksies vir toetsing en onderhoud moet beskikbaar wees.

(ii) Voorsiening moet gemaak word om die korrekte werking van die verklikkers en aanduidingseenhede te toets deur die verskaffing van middele om warm lug en rook by die verklikkerposisies vry te stel.

(h) Noodklikkerkoppe moet vir elke seksie klikkers voorsien word tot bevrediging van Administrasie.

Vereistes ten opsigte van alle ander soorte skepe

(i) Alle vereiste brandverklikstelsels moet in staat wees om outomaties die teenwoordigheid of aanduidings van 'n brand en sy posisie aan te dui. Aanduiders moet òf op die navigasiebrug gesentraliseer wees òf in ander beheerposte wat voorsien is van 'n direkte kommunikasie met die brug. Die Administrasie kan toelaat dat die aanduiders versprei word oor verskeie poste.

(1,8 °F) per minute. At the discretion of the Administration the permissible temperature of operation may be increased to 30 °C (54 °F) above the maximum deckhead temperature in drying rooms and similar places of a normally high ambient temperature. Systems which are sensative to smoke concentration shall operate on the reduction of the intensity of a transmitted light beam by an amount to be determined by the Administration. Other equally effective methods of operation may be accepted at the discretion of the Administration. The detection system shall not be used for any purpose other than fire detection.

(d) The detectors may be arranged to operate the alarm by the opening or closing of contacts or by other appropriate methods. They shall be fitted in an overhead position and shall be suitably protected against impact and physical damage. They shall be suitable for use in a marine atmosphere. They shall be placed in an open position clear of beams and other objects likely to obstruct the flow of hot gases or smoke to the sensitive element. Detectors operated by the closing of contacts shall be of the sealed contact type and the circuit shall be continuously monitored to indicate fault conditions.

(e) At least one detector shall be installed in each space where detection facilities are required and there shall be not less than one detector for each 37 square metres (400 square feet) of deck area. In large spaces the detectors shall be arranged in a regular pattern so that no detector is more than 9 metres (30 feet) from another detector or more than 4,5 metres (15 feet) from a bulkhead.

(f) There shall be not less than two sources of power supply for the electrical equipment used in the operation of the fire alarm and fire detection system, one of which shall be an emergency source. The supply shall be provided by separate feeders reserved solely for that purpose. Such feeders shall run to a changeover switch situated in the control station for the fire detection system. The wiring system shall be so arranged to avoid galleys, machinery spaces and other enclosed spaces having a high fire risk except in so far as it is necessary to provide for fire detection in such spaces or to reach the appropriate switchboard.

(g) (i) A list or plan shall be displayed adjacent to each indicating unit showing the spaces covered and the location of the zone in respect of each section. Suitable instructions for testing and maintenance shall be available.

(ii) Provision shall be made for testing the correct operation of the detectors and the indicating units by supplying means for applying hot air or smoke at detector positions.

(h) Spare detector heads shall be provided for each section of detectors to the satisfaction of the Administration.

Requirements for all other types of ships

(i) All required fire detection systems shall be capable of automatically indicating the presence or indication of fire and also its location. Indicators shall be centralized either on the navigating bridge or in other control stations which are provided with a direct communication with the bridge. The Administration may permit the indicators to be distributed among several stations.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(j) By passasierskepe moet elektriese toerusting wat gebruik word in die werking van vereiste brandverklikstelsels, twee afsonderlike kragbronne hê waarvan een 'n noodbron moet wees.

(k) Die alarmstelsel moet by die hoofposte vermeld in paragraaf (i) van hierdie Regulasie hoorbare sowel as sigbare seine in werking stel. Verklikstelsels vir vragruimtes hoef nie hoorbare alarms te hê nie.

REGULASIE 14

Uitrusting vir brandweermanne

'n Brandweermanuitrusting moet bestaan uit—

(a) persoonlike toerusting wat bestaan uit—

(i) beskermende klere van materiaal wat die vel beskerm teen die hitte wat die vuur uitstraal en van brandwonde en skroeiing deur stoom. Die binnekant moet waterbestand wees;

(ii) stewels en handskoene van rubber of 'n ander stof wat elektrisiteit nie gelei nie;

(iii) 'n stewige helm wat doeltreffende beskerming teen skok verleen;

(iv) 'n elektriese veiligheidslamp (handlantern) van 'n goedgekeurde tipe met 'n minimum brandduur van drie uur;

(v) 'n byl wat die Administrasie goedkeur;

(b) goedgekeurde asemhalingsapparaat wat een van die volgende kan wees:

(i) 'n Rookhelm of rookmasker toegerus met 'n geskikte lugpomp en 'n lugslang van voldoende lengte om vanaf die oop dek, deeglik weg van luik en deuropening, tot in enige deel van die ruime of masjinerieruimtes te reik. Indien 'n lugslang van langer as 36 meter (120 voet) nodig sou wees ten einde aan die bepalings van hierdie subparagraaf te voldoen, moet in die plek daarvan of daarbenewens 'n selfstandige asemhaalapparaat verskaf word, na gelang die Administrasie bepaal;

(ii) 'n selfstandige asemhaalapparaat wat in staat is om so lank te funksioneer as wat die Administrasie bepaal.

Vir elke asemhalingsapparaat moet daar 'n brandvaste reddingslyn van voldoende lengte en sterkte voorsien word wat deur middel van 'n springhaak aan die apparaat se harnas of aan 'n afsonderlike gordel vasgeheg kan word ten einde te verhoed dat die asemhalingsapparaat losraak wanneer die reddingstou gebruik word.

REGULASIE 15

Geredelike beskikbaarheid van brandblusapparaat

Op alle nuwe en bestaande skepe moet brandblusapparaat in 'n goeie toestand en gereed vir onmiddellike gebruik gehou word te alle tye gedurende die reis.

REGULASIE 16

Aanvaarding van substitute

Waar daar in hierdie deel van hierdie Hoofstuk 'n spesiale tipe van toestel, apparaat, blusmiddel of inrigting gespesifiseer word, kan enige ander tipe toestel, ens., toegelaat word, mits die Administrasie daarvan oortuig is dat dit nie minder doeltreffend is nie.

(j) In passenger ships electrical equipment used in the operation of required fire detection systems shall have two separate sources of power, one of which shall be an emergency source.

(k) The alarm system shall operate both audible and visible signals at the main stations referred to in paragraph (i) of this Regulation. Detection systems for cargo spaces need not have audible alarms.

REGULATION 14

Fireman's outfit

A fireman's outfit shall consist of—

(a) personal equipment comprising—

(i) protective clothing of material to protect the skin from the heat radiating from the fire and from burns and scalding by steam. The outer surface shall be water-resistant;

(ii) boots and gloves of rubber or other electrically non-conducting material;

(iii) a rigid helmet providing effective protection against impact;

(iv) an electric safety lamp (hand lantern) of an approved type with a minimum burning period of three hours;

(v) an axe to the satisfaction of the Administration;

(b) a breathing apparatus of an approved type which may be either—

(i) a smoke helmet or smoke mask which shall be provided with a suitable air pump and a length of air hose sufficient to reach from the open deck, well clear of hatch or doorway, to any part of the holds or machinery spaces. If, in order to comply with this subparagraph, an air hose exceeding 36 metres (120 feet) in length would be necessary, a self-contained breathing apparatus shall be substituted or provided in addition as determined by the Administration; or

(ii) a self-contained breathing apparatus which shall be capable of functioning for a period of time to be determined by the Administration.

For each breathing apparatus a fireproof lifeline of sufficient length and strength shall be provided capable of being attached by means of a snaphook to the harness of the apparatus or to a separate belt in order to prevent the breathing apparatus becoming detached when the lifeline is operated.

REGULATION 15

Ready availability of fire-extinguishing appliances

In all new and existing ships, fire-extinguishing appliances shall be kept in good order and available for immediate use at all times during the voyage.

REGULATION 16

Acceptance of substitutes

Where in this Chapter any special type of appliance, apparatus, extinguishing medium or arrangement is specified in any new and existing ships, any other type of appliance etc., may be allowed, provided the Administration is satisfied that it is not less effective.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

DEEL B — BRANDBEVEILIGINGSMAATREËLS VIR PASSASIERSKEPE MET MEER AS 36 PASSASIERS

REGULASIE 17

Bouwerk

Die romp, bobou, strukturele beskotte, dekke en dekhuise moet van staal of ander ekwivalente materiaal gebou wees. Met die oog op die toepassing van die definisie van staal of ander ekwivalente materiaal soos beskryf in Regulasie 3 (g) van hierdie Hoofstuk, moet die "toepaslike vuurblootstelling" ooreenstem met die integriteits- en isoleringstandaarde in die tabelle van Regulasie 20 van hierdie Hoofstuk. Waar indelings soos dekke of kante en eindes van dekhuise byvoorbeeld toegelaat word om 'n brandintegriteit van "B-0" te hê moet die "toepaslike vuurblootstelling" 'n halfuur duur.

Met dien verstande dat in gevalle waar enige deel van die struktuur van aluminiumallooi is, die volgende vereistes sal geld:

(a) Die isolering van aluminiumallooikomponente van Klas "A"- of "B"-indelings, behalwe bouwerk wat na die mening van die Administrasie nie belas is nie, moet sodanig wees dat die strukturele kern se temperatuur nie meer as 200 °C (360 °F) bo die omringende temperatuur styg te eniger tyd gedurende die toepaslike vuurblootstelling in die standaardvuurproef nie.

(b) Spesiale aandag moet geskenk word aan die isolering van aluminiumallooikomponente van pilare, stutte en ander strukturele raamdele wat vereis word vir die ondersteuning van reddingsboot- en reddingsvlotstuwing, tewaterlating- en inskepingsgebiede en indelings van Klas "A" en "B", om te verseker—

(i) dat die temperatuurstygbeperkings soos gespesifiseer in paragraaf (a) van hierdie Regulasie aan die einde van een uur sal geld ten opsigte van dié raamdele wat reddingsboot- en reddingsvlotgebiede ondersteun; en

(ii) dat vir dié raamdele wat indelings van Klas "B" moet ondersteun, die temperatuurstygbeperking soos gespesifiseer in paragraaf (a) van hierdie Regulasie aan die einde van 'n halfuur sal geld.

(c) Die kruine en hulsels van masjinerieruimtes van Kategorie A moet van staal gebou en voldoende geïsoleer wees en die openings daarin, as daar is, moet paslik ingerig en beskerm wees om brandverspreiding te verhoed.

REGULASIE 18

Vertikale en horisontale hoofsones

(a) Die romp, bobou en dekhuise moet deur Klas "A"-verdelings in vertikale hoofsones onderverdeel word. Trapsgewyse verspringings en nisse moet tot 'n minimum beperk word, maar waar hulle nodig is, moet hulle ook verdelings van Klas "A" wees. Hierdie verdelings moet isoleringswaardes hê ooreenkomstig die toepaslike tabelle in Regulasie 20 van hierdie Hoofstuk.

(b) Vir sover dit prakties uitvoerbaar is, moet die beskotte wat die grense van die vertikale hoofsones bo die beskotdek vorm, op een lyn lê met waterdigte indelingsbeskotte wat onmiddellik onderkant die beskotdek geleë is.

(c) Sulke beskotte moet van dek tot dek en tot by die huid of ander grense strek.

PART B — FIRE SAFETY MEASURES FOR PASSENGER SHIPS CARRYING MORE THAN 36 PASSENGERS

REGULATION 17

Structure

The hull, superstructure, structural bulkheads, decks and deckhouses shall be constructed of steel or other equivalent material. For the purpose of applying the definition of steel or other equivalent material as given in Regulation 3 (g) of this Chapter the "applicable fire exposure" shall be according to the integrity and insulation standards given in the tables of Regulation 20 of this Chapter. An example where divisions such as decks or sides and ends of deckhouses are permitted to have "B–0" fire integrity, the "applicable fire exposure" shall be one half-hour.

Provided that in cases where any part of the structure is of aluminium alloy, the following requirements shall apply:

(a) The insulation of aluminium alloy components of "A" or "B" Class divisions, except structure which in the opinion of the Administration is non-load-bearing, shall be such that the temperature of the structural core does not rise more than 200 °C (360 °F) above the ambient temperature at any time during the applicable fire exposure to the standard fire test.

(b) Special attention shall be given to the insulation of aluminium alloy components of columns, stanchions and other structural members required to support lifeboat and liferaft stowage, launching and embarkation areas, and "A" and "B" Class divisions to ensure—

(i) that for such members supporting lifeboat and liferaft areas and "A" Class divisions the temperature rise limitation specified in paragraph (a) of this Regulation shall apply at the end of one hour; and

(ii) that for such members required to support "B" Class divisions, the temperature rise limitation specified in paragraph (a) of this Regulation shall apply at the end of one half-hour.

(c) Crowns and casings of machinery spaces of Category A shall be of steel construction adequately insulated and openings therein, if any, shall be suitably arranged an protected to prevent the spread of fire.

REGULATION 18

Main vertical zones and horizontal zones

(a) The hull, superstructure and deckhouses shall be subdivided into main vertical zones by "A" Class divisions. Steps and recesses shall be kept to a minimum, but where they are necessary, they shall also be "A" Class divisions. These divisions shall have insulation values in accordance with the applicable tables in Regulation 20 of this Chapter.

(b) As far as practicable, the bulkheads forming the boundaries of the main vertical zones above the bulkhead deck shall be in line with watertight subdivision bulkheads situated immediately below the bulkhead deck.

(c) Such bulkheads shall extend from deck to deck and to the shell or other boundaries.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(d) Waar 'n vertikale hoofsone deur horisontale Klas "A"-verdelings onderverdeel word in horisontale sones met die oog op die voorsiening van 'n geskikte afsluiting tussen sones van die skip met en sonder sproeiers, moet die verdelings strek tussen aangrensende vertikale hoofsonebeskotte en tot by die buiteromp van die skip en moet hulle geïsoleer wees ooreenkomstig die brandisolerings- en integriteitswaardes in Tabel 3 van Regulasie 20 van hierdie Hoofstuk.

(e) Op skepe wat vir 'n spesiale doel ontwerp is, soos veerbote vir die vervoer van outomobiele of spoorwegwaens, waar die installering van sulke beskotte die doel sou verydel waarvoor die skip bestem is, moet ekwivalente middels vir die beheer en beperking van brand in die plek van sodanige beskotte gestel en spesiaal deur die Administrasie goedgekeur word.

Met dien verstande dat alle sodanige ruimtes in 'n skip met spesiale kategorie-ruimtes moet voldoen aan die toepaslike bepalings van Regulasie 30 van hierdie Hoofstuk, en dat vir sover sodanige voldoening in stryd met die nakoming van ander vereistes van hierdie deel van die hoofstuk is, die vereistes van Regulasie 30 moet geld.

REGULASIE 19

Beskotte binne 'n vertikale hoofsone

(a) Alle beskotte wat nie Klas "A"-beskotte hoef te wees nie, moet ten minste Klas "B"- of Klas "C"-beskotte wees soos voorgeskryf in Regulasie 20 van hierdie Hoofstuk. Alle sodanige verdelings kan met brandbare materiaal beklee wees ooreenkomstig die bepalings van Regulasie 27 van hierdie Hoofstuk.

(b) Alle gangbeskotte wat nie van Klas "A" hoef te wees nie, moet Klas "B"-verdelings wees wat van dek tot dek strek, met die volgende uitsonderings:

(i) Waar deurlopende Klas "B"-plafonne en/of bekledings aan beide kante van die beskot aangebring word, moet die gedeelte van die beskot agter die deurlopende plafon of bekleding van materiaal wees wat ten opsigte van dikte en samestelling aanneemlik is vir die konstruksie van Klas "B"-verdelings maar wat net aan die Klas "B"-integriteitstandaarde moet voldoen vir sover die Administrasie dit redelik en doenlik ag.

(ii) In die geval van 'n skip wat beskerm word deur 'n outomatiese sproeierstelsel wat aan die bepalings van Regulasie 12 van hierdie Hoofstuk voldoen, kan die gangbeskotte van Klas "B"-materiaal net tot by 'n plafon in die gang strek, solank sodanige plafon ten opsigte van dikte en samestelling aanneemlik is vir die konstruksie van Klas "B"-verdelings. Nieteenstaande die vereistes van Regulasie 20 van hierdie Hoofstuk, moet daar net vereis word dat sodanige beskotte en plafonne aan Klas "B"-integriteitstandaarde voldoen vir sover dit na die mening van die Administrasie redelik en prakties is. Alle deure, kosyne en rame in sulke beskotte moet van onbrandbare materiaal wees en sodanig gebou en opgerig wees dat dit tot bevrediging van die Administrasie sterk brandweerstand verleen.

(c) Alle beskotte wat Klas "B"-verdelings moet wees, behalwe gangbeskotte, moet van dek tot dek strek en tot by die buiteromp of ander grense tensy deurlopende Klas "B"-plafonne en/of bekledings aan beide kante van die beskot aangebring is, in welke geval die beskot kan doodloop by die deurlopende plafon of bekleding.

(d) Where a main vertical zone is subdivided by horizontal "A" Class divisions into horizontal zones for the purpose of providing an appropriate barrier between sprinklered and non-sprinklered zones of the ship the divisions shall extend between adjacent main vertical zone bulkheads and to the shell or exterior boundaries of the ship and shall be insulated in accordance with the fire insulation and integrity values given in Table 3 of Regulation 20 of this Chapter.

(e) On ships designed for special purposes, such as automobile or railroad car ferries, where the provision of main vertical zone bulkheads would defeat the purpose for which the ship is intended, equivalent means for controlling and limiting a fire shall be substituted and specifically approved by the Administration.

Provided that in a ship with special category spaces, any such space shall comply with the applicable provisions of Regulation 30 of this Chapter, and in so far as such compliance would be inconsistent with compliance with other requirements of this Part of this Chapter, the requirements of Regulation 30 shall prevail.

REGULATION 19

Bulkheads within a main vertical zone

(a) All bulkheads which are not required to be "A" Class divisions shall be at least "B" Class or "C" Class divisions as prescribed in the tables in Regulation 20 of this Chapter. All such divisions may be faced with combustible materials in accordance with the provisions of Regulation 27 of this Chapter.

(b) All corridor bulkheads where not required to be "A" Class shall be "B" Class divisions which shall extend from deck to deck except—

(i) when continuous "B" Class ceilings and/or linings are fitted on both sides of the bulkhead, the portion of the bulkhead behind the continuous ceiling or lining shall be of material which in thickness and composition is acceptable in the construction of "B" Class divisions but which shall be required to meet "B" Class integrity standards only in so far as is reasonable and practicable in the opinion of the Administration;

(ii) in the case of a ship protected by an automatic sprinkler system complying with the provisions of Regulation 12 of this Chapter, the corridor bulkheads of "B" Class materials may terminate at a ceiling in the corridor provided such a ceiling is of material which in thickness and composition is acceptable in the construction of "B" Class divisions. Notwithstanding the requirements of Regulation 20 of this Chapter, such bulkheads and ceilings shall be required to meet "B" Class integrity standards only in so far as is reasonable and practicable in the opinion of the Administration. All doors and frames in such bulkheads shall be of incombustible materials and shall be constructed and erected so as to provide substantial fire resistance to the satisfaction of the Administration.

(c) All bulkheads required to be "B" Class divisions, except corridor bulkheads, shall extend from deck to deck and to the shell or other boundaries unless continuous "B" Class ceilings and/or linings are fitted on both sides of the bulkhead in which case the bulkhead may terminate at the continuous ceiling or lining.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 20

Brandintegriteit van beskotte en dekke

(a) Afgesien van hulle voldoening aan die spesifieke vereistes betreffende beskotte en dekke elders in die regulasies in hierdie gedeelte, moet die minimum brandintegriteit van alle beskotte en dekke wees soos voorgeskryf in Tabelle 1 tot 4 van hierdie regulasie. Waar daar weens enige besondere strukturele inrigting in 'n skip probleme voorkom met die vasstelling uit die tabelle van die minimum brandintegriteitswaardes van enige verdelings, moet sodanige waardes tot bevrediging van die Administrasie vasgestel word.

(b) Die gebruik van die tafels is onderworpe aan die volgende bepalings:

(i) Tabel 1 geld ten opsigte van beskotte wat vertikale en horisontale hoofsones begrens.

Tabel 2 geld ten opsigte van beskotte wat nòg vertikale nòg horisontale hoofsones begrens.

Tabel 3 geld ten opsigte van dekke wat in vertikale hoofsones trappe vorm of wat horisontale sones begrens.

Tabel 4 geld ten opsigte van dekke wat nie in vertikale hoofsones trappe vorm of horisontale sones begrens nie.

(ii) Met die oog op die vasstelling van die toepaslike brandintegriteitstandaarde van toepassing op die grense tussen aangrensende ruimtes, word sodanige ruimtes geklassifiseer ooreenkomstig hulle brandrisiko soos aangetoon in Kategorieë (1) tot (14) hieronder. Waar die inhoud en gebruik van 'n ruimte sodanig is dat daar twyfel is oor sy klassifikasie vir doeleindes van hierdie regulasie, moet dit behandel word as 'n ruimte binne die betrokke kategorie met die strengste grensvereistes. Die titel van elke kategorie is bedoel as tipies eerder as beperkend. Die nommer tussen hakies voor elke kategorie verwys na die toepaslike kolom of die rye se nommers in die tabelle.

(1) *Beheerposte.*

Ruimtes met noodbronne van krag en beligting.

Stuurhuis en kaartkamer.

Ruimtes met die skip se radiotoerusting.

Brandbeheer- en registrasieposte.

Beheerkamer vir aandrywingsmasjinerie waar dit buite die aandrywingsmasjinerieruimte geleë is.

Ruimtes met gesentraliseerde brandalarmtoerusting.

Ruimtes met gesentraliseerde nood-openbare luidsprekerstelselposte en -toerusting.

(2) *Trappe.*

Binnetrappe, -hysers en -roltrappe (behalwe dié wat volkome omsluit is binne masjinerieruimtes) vir passasiers en bemanning, en omsluitings daarvan.

In hierdie verband moet 'n trap wat net op een vlak omsluit is, beskou word as deel van die ruimte waarvan dit nie deur 'n branddeur geskei word nie.

(3) *Gange.*

Passasiers- en bemanningsgange.

(4) *Reddingsboot- en reddingsvlothanterings- en inskeepposte.*

Oop dekruimtes en omslote promenades wat inskeep- en neerlaatposte vir reddingsbote en reddingsvlotte uitmaak.

(5) *Oop dekruimtes.*

Oop dekruimtes en omslote promenades weg van inskeep- en neerlaatposte vir reddingsbote en reddingsvlotte.

Lugruimte (die ruimte buite die bobou en dekhuis).

REGULATION 20

Fire integrity of bulkheads and decks

(a) In addition to complying with the specific provisions for fire integrity of bulkheads and decks mentioned elsewhere in the Regulations of this Part, the minimum fire integrity of all bulkheads and decks shall be as prescribed in Tables 1 to 4 in this Regulation. Where, due to any particular structural arrangements in the ship, difficulty is experienced in determining from the tables the minimum fire integrity value of any divisions, such values shall be determined to the satisfaction of the Administration.

(b) The following requirements shall govern application of the tables:

(i) Table 1 shall apply to bulkheads bounding main vertical zones or horizontal zones.

Table 2 shall apply to bulkheads not bounding either main vertical zones or horizontal zones.

Table 3 shall apply to decks forming steps in main vertical zones or bounding horizontal zones.

Table 4 shall apply to decks not forming steps in main vertical zones nor bounding horizontal zones.

(ii) For the purpose of determining the appropriate fire integrity standards to be applied to boundaries between adjacent spaces, such spaces are classified according to their fire risk as shown in Categories (1) to (14) below. Where the contents and use of a space are such that there is a doubt as to its classification for the purpose of this Regulation, it shall be treated as a space within the relevant category having the most stringent boundary requirements. The title of each category is intended to be typical rather than restrictive. The number in parentheses preceding each category refers to the applicable column or row number in the tables.

(1) *Control stations.*

Spaces containing emergency sources of power and lighting.

Wheelhouse and chartroom.

Spaces containing the ship's radio equipment.

Fire control and recording stations.

Control room for propelling machinery when located outside the propelling machinery space.

Spaces containing centralized fire alarm equipment.

Spaces containing centralized emergency public address system stations and equipment.

(2) *Stairways.*

Interior stairways, lifts and escalators (other than those wholly contained within the machinery spaces) for passengers and crew and enclosures thereto.

In this connection, a stairway which is enclosed at only one level shall be regarded as part of the space from which it is not separated by a fire door.

(3) *Corridors.*

Passenger and crew corridors.

(4) *Lifeboat and liferaft handling and embarkation stations.*

Open deck spaces and enclosed promenades forming lifeboat and liferaft embarkation and lowering stations.

(5) *Open deck spaces.*

Open deck spaces and enclosed promenades clear of lifeboat and liferaft embarkation and lowering stations.

Air space (the space outside superstructures and deckhouses).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(6) *Akkommodasieruimtes met 'n klein brandrisiko.*

Kajuite met meubels en toebehore met 'n beperkte brandrisiko.

Openbare ruimtes met meubels en toebehore met 'n beperkte brandrisiko.

Openbare ruimtes met meubels en toebehore met 'n beperkte brandrisiko en met 'n dekoppervlakte van kleiner as 50 vierkante meter (540 vierkante voet).

Kantore en apteke met meubels en toebehore met 'n beperkte brandrisiko.

(7) *Akkommodasieruimtes met 'n matige brandrisiko.*

Dieselfde as (6) hierbo maar met ander meubels en toebehore as dié met beperkte brandrisiko.

Openbare ruimtes met meubels en toebehore met 'n beperkte brandrisiko, maar met 'n dekoppervlakte van 50 vierkante meter (540 vierkante voet) en groter.

Geïsoleerde sluitkaste en klein pakkamers in akkommodasieruimtes.

Winkels.

Rolprentprojeksiekamers en filmpakkamers.

Koskombuise (sonder enige oop vlamme).

Sluitkaste vir skoonmaakgerei (waarin geen ontvlambare vloeistowwe gebêre word nie).

Laboratoriums (waarin geen ontvlambare vloeistowwe gebêre word nie).

Apteke.

Klein droogkamers [met 'n dekoppervlakte van 4 vierkante meter (43 vierkante voet) of kleiner].

Spesiekamers.

(8) *Akkommodasieruimtes met 'n groot brandrisiko.*

Openbare ruimtes met ander meubels en toebehore as dié met 'n beperkte brandrisiko, en met 'n dekoppervlakte van 50 vierkante meter (540 vierkante voet) en groter.

Haarkapperswinkels en skoonheidsalonne.

(9) *Sanitêre en soortgelyke ruimtes.*

Gemeenskaplike sanitêre geriewe, storte, baddens, spoellatrines, ens.

Klein wasgoedkamers.

Binneshuise swembadgebied.

Operasiekamers.

Geïsoleerde bedieningspense in akkommodasieruimtes.

Privaat sanitêre geriewe moet beskou word as deel van die ruimte waarin hulle geleë is.

(10) *Tenke, leë ruimtes en hulpmasjinerieruimtes met min of geen brandrisiko.*

Watertenks wat deel van die skip se bou uitmaak.

Leë ruimtes en kisdamme.

Hulpmasjinerieruimtes sonder masjinerie met 'n druksmeringstelsel, en waar die berging van brandbare stowwe verbode is, soos:

Ventilasie- en lugversorgingskamers; windaskamers; stuurtoerustingkamers; stabiliseringstoerustingkamers; kamers vir elektriese aandrywingsmotore; vertrekke met seksie-skakelborde en suiwer elektriese toerusting, behalwe olie-gevulde elektriese transformators (bo 10 kVA); skaggange en pyptonnels; ruimtes vir pompe en verkoelingsmasjinerie (wat nie ontvlambare stowwe hanteer of gebruik nie).

Geslote kokers wat die bogenoemde ruimtes bedien.

Ander geslote kokers soos pyp- en kabelkokers.

(6) *Accommodation spaces of minor fire risk.*

Cabins containing furniture and furnishings of restricted fire risk.

Public spaces containing furniture and furnishings of restricted fire risk.

Public spaces containing furniture and furnishings of restricted fire risk and having a deck area of less than 50 square metres (540 square feet).

Offices and dispensaries containing furniture and furnishings of restricted fire risk.

(7) *Accommodation spaces of moderate fire risk.*

Same as (6) above but containing furniture and furnishings of other than restricted fire risk.

Public spaces containing furniture and furnishings of restricted fire risk and having a deck area of 50 square metres (540 square feet) and greater.

Isolated lockers and small store-rooms in accommodation spaces.

Sale shops.

Motion picture projection and film stowage rooms.

Diet kitchens (containing no open flame).

Cleaning gear lockers (in which inflammable liquids are not stowed).

Laboratories (in which inflammable liquids are not stowed).

Pharmacies.

Small drying rooms [having a deck area of 4 square metres (43 square feet) or less].

Specie rooms.

(8) *Accommodation spaces of greater fire risk.*

Public spaces containing furniture and furnishings of other than restricted fire risk and having a deck area of 50 square metres (540 square feet) and greater.

Barber shops and beauty parlours.

(9) *Sanitary and similar spaces.*

Communal sanitary facilities, showers, baths, water closets, etc.

Small laundry rooms.

Indoor swimming pool area.

Operating rooms.

Isolated serving pantries in accommodation spaces.

Private sanitary facilities shall be considered a portion of the space in which they are located.

(10) *Tanks, voids and auxiliary machinery spaces having little or no fire risk.*

Water tanks forming part of the ship's structure.

Voids and cofferdams.

Auxiliary machinery spaces which do not contain machinery having a pressure lubrication system and where storage of combustibles is prohibited, such as—

ventilation and air-conditioning rooms; windlass room; steering gear room; stabilizer equipment room; electrical propulsion motor room; rooms containing section switchboards and purely electrical equipment other than oil-filled electrical transformers (above 10 kVA); shaft alleys and pipe tunnels; spaces for pumps and refrigeration machinery (not handling or using inflammable liquids).

Closed trunks serving the spaces listed above.

Other closed trunks such as pipe and cable trunks.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(11) *Hulpmasjinerieruimtes, vragruime, spesiale kategorie-ruimtes, vrag- en ander olietenks en ander dergelike ruimtes met 'n matige brandrisiko.*

Vragolietenks.
Laairuime, kokergange en luikopeninge.
Koelkamers.
Oliebrandstoftenks (geïnstalleer in 'n aparte ruimte sonder masjinerie).
Skaggange en pyptonnels wat die berging van brandbare stowwe moontlik maak.
Hulpmasjinerieruimtes soos in Kategorie (10) met masjinerie met 'n druksmeerstelsel of waar die berging van brandbare stowwe toegelaat word.
Oliebrandstofvulstasies.
Ruimtes met olie-gevulde elektriese transformators (groter as 10 kVA).
Ruimtes met turbine- en suierstoomenjin-aangedrewe hulpgenerators en klein binnebrandenjins met 'n kraglewering van hoogstens 112 kW wat noodgenerators, sproeiers, storttoestelle, vullingspompe, ens. aandryf.
Spesiale kategorieruimtes (net Tabelle 1 en 3 van toepassing).
Omslote kokers wat die bogenoemde ruimtes bedien.

(12) *Masjinerieruimtes en hoofgange.*

Hoof-aandrywingsmasjineriekamers (behalwe elektriese aandrywingsmotorkamers) en ketelkamers.
Hulpmasjinerieruimtes, behalwe die in Kategorieë (10) en (11), met binnebrandmasjinerie of ander olieverbrandings-, verwarmings- of pompeenhede.
Hoofgange en annekse.
Kokers en kaste na die bogenoemde ruimtes.

(13) *Pakkamers, werkswinkels, spense, ens.*

Hoofspense los van gange.
Hoofwassery.
Grootdroogkamers [met 'n dekoppervlakte van meer as 4 vierkante meter (43 vierkante voet)].
Diverse pakkamers.
Pos- en bagasieruimtes.
Vulliskamers.
Werkswinkels (nie deel van masjinerieruimtes, gange, ens. nie).

(14) *Ander ruimtes waarin ontvlambare vloeistowwe geberg word.*

Lampkamers.
Verfkamers.
Pakkamers met ontvlambare vloeistowwe (insluitende kleurstowwe, medisynes, ens.).
Laboratoriums (waarin ontvlambare vloeistowwe geberg word).

(iii) Waar 'n enkele waarde aangetoon word vir die brandintegriteit van 'n grens tussen twee ruimtes, geld daardie waarde in alle gevalle.

(iv) By die vasstelling van die toepaslike brandintegriteitstandaard van 'n grens tussen twee ruimtes binne 'n vertikale of horisontale hoofsone wat nie beskerm word deur 'n outomatiese sproeierstelsel wat voldoen aan die vereistes van Regulasie 12 van hierdie Hoofstuk nie of tussen twee sodanige sones waarvan nie een so beskerm word nie, geld die hoogste van die twee waardes in die tabelle.

(v) By die vasstelling van die toepaslike brandintegritietstandaard van 'n grens tussen twee ruimtes binne 'n vertikale of horisontale hoofsone wat beskerm word deur 'n outomatiese sproeierstelsel wat aan die vereistes van Regulasie 12 van hierdie Hoofstuk voldoen, of tussen sulke sones wat beide so beskerm word,

(11) *Auxiliary machinery spaces, cargo spaces, special category spaces, cargo and other oil tanks and other similar spaces of moderate fire risk.*

Cargo oil tanks.
Cargo holds, trunkways and hatchways.
Refrigerated chambers.
Oil fuel tanks (where installed in a separate space with no machinery).
Shaft alleys and pipe tunnels allowing storage of combustibles.
Auxiliary machinery spaces as in Category (10) which contain machinery having a pressure lubrication system or where storage of combustibles is permitted.
Oil fuel filling stations.
Spaces containing oil-filled electrical transformers (above 10 kVA).
Spaces containing turbine and reciprocating steam engine driven auxiliary generators and small internal combustion engines of power output up to 112 kW driving emergency generators, sprinkler, drencher or fire pumps, bilge pumps, etc.
Special category spaces (Tables 1 and 3 only apply).
Closed trunks serving the spaces listed above.

(12) *Machinery spaces and main galleys.*

Main propelling machinery rooms (other than electric propulsion motor rooms) and boiler rooms.
Auxiliary machinery spaces other than those in Categories (10) and (11) which contain internal combustion machinery or other oil-burning, heating or pumping units.
Main galleys and annexes.
Trunks and casings to the spaces listed above.

(13) *Store-rooms, workshops, pantries, etc.*

Main pantries not annexed to galleys.
Main laundry.
Large drying rooms [having a deck area of more than 4 square metres (43 square feet)].
Miscellaneous stores.
Mail and baggage rooms.
Garbage rooms.
Workshops (not part of machinery spaces, galleys, etc.).

(14) *Other spaces in which inflammable liquids are stowed.*

Lamp rooms.
Paint rooms.
Store-rooms containing inflammable liquids (including dyes, medicines, etc.).
Laboratories (in which inflammable liquids are stowed).

(iii) Where a single value is shown for the fire integrity of a boundary between two spaces, that value shall apply in all cases.

(iv) In determining the applicable fire integrity standard of a boundary between two spaces within a main vertical zone or horizontal zone which is not protected by an automatic sprinkler system complying with the provisions of Regulation 12 of this Chapter or between such zones neither of which is so protected, the higher of the two values given in the tables shall apply.

(v) In determining the applicable fire integrity standard of a boundary between two spaces within a main vertical zone or horizontal zone which is protected by an automatic sprinkler system complying with the provisions of Regulation 12 of this Chapter or between such zones both of which are so protected, the lesser

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

geld die laagste van die twee waardes in die tabelle. In gevalle waar 'n sproeierbeskermde en onbeskermde sone bymekaarkom binne akkommodasie- en diensruimtes, geld die hoogste van die twee waardes in die tabelle ten opsigte van die verdeling tussen die sones.

(vi) Waar aangrensende ruimtes in dieselfde getalskategorie val en die verwysingsyfer "1" in die tabelle voorkom, hoef 'n beskot of dek tussen sodanige ruimtes nie aangebring te word as die Administrasie dit as onnodig beskou nie. In Kategorie (12) hoef 'n beskot byvoorbeeld nie vereis te word tussen 'n gang en sy aaneenliggende spense nie, solank die spensbeskotte en -dekke die integriteit van die gang se grense handhaaf. 'n Beskot word egter vereis tussen 'n gang en 'n masjinerieruimte hoewel beide ruimtes onder Kategorie (12) ressorteer.

(vii) Waar die verwysingsyfer "2" in die tabelle voorkom, kan die laer isolasiewaarde net toegelaat word indien minstens een van die aangrensende ruimtes beskerm word deur 'n sproeierstelsel wat voldoen aan die bepalings van Regulasie 12 van hierdie Hoofstuk.

(viii) Nieteenstaande die bepalings van Regulasie 19 van hierdie Hoofstuk, is daar geen spesiale vereistes ten opsigte van die materiaal of integriteit van grense waar daar slegs 'n strepie in die tabelle voorkom nie.

(ix) Die Administrasie moet ten opsigte van Kategorie (5)-ruimtes bepaal of die isoleringswaardes in Tabel 1 of 2 vir die eindes van dekhuise en die bobou moet geld en of die isoleringswaardes in Tabel 3 of 4 moet geld ten opsigte van oop dekke. In geen geval moet die vereistes van Kategorie (5) van Tabelle 1 tot 4 die omsluiting noodsaak van ruimtes wat na die Administrasie se mening oop kan bly nie.

(c) Deurlopende Klas "B"-plafonne of -bekledings kan in samehang met die betrokke dekke of beskotte geag word geheel of gedeeltelik by te dra tot die vereiste isolering en integriteit van 'n verdeling.

(d) By die goedkeur van strukturele brandbeskermingsdetail moet die Administrasie ag slaan op die risiko van hitteoordrag by kruispunte en eindpunte van die vereiste termiese grense.

of the two values given in the tables shall apply. In instances where a sprinklered zone and a non-sprinklered zone meet within accommodation and service spaces, the higher of the two values given in the tables shall apply to the division between the zones.

(vi) Where adjacent spaces are in the same numerical category and the superscript "1" appears in the tables, a bulkhead or deck between such spaces need not be fitted if deemed unnecessary by the Administration. For example, in Category (12) a bulkhead need not be required between a galley and its annexed pantries provided the pantry bulkheads and decks maintain the integrity of the galley boundaries. A bulkhead is, however, required between a galley and a machinery space even though both spaces are in Category (12).

(vii) Where the superscript "2" appears in the tables, the lesser insulation value may be permitted only if at least one of the adjoining spaces is protected by an automatic sprinkler system complying with the provisions of Regulation 12 of this Chapter.

(viii) Notwithstanding the provisions of Regulation 19 of this Chapter, there are no special requirements for material or integrity of boundaries where only a dash appears in the tables.

(ix) The Administration shall determine in respect of Category (5) spaces whether the insulation values in Table 1 or 2 shall apply to ends of deckhouses and superstructures, and whether the insulation values in Table 3 or 4 shall apply to weather decks. In no case shall the requirements of Category (5) of Tables 1 to 4 necessitate enclosure of spaces which in the opinion of the Administration need not be enclosed.

(c) Continuous "B" Class ceilings or linings, in association with the relevant decks or bulkheads, may be accepted as contributing wholly or in part, to the required insulation and integrity of a division.

(d) In approving structural fire protection details, the Administration shall have regard to the risk of heat transmission at intersections and terminal points of required thermal barriers.

TABEL 1.—BESKOTTE WAT VERTIKALE EN HORISONTALE HOOFSONES BEGRENS

Ruimtes		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Beheerposte.....	(1)	A-60	A-30	A-30	A-0	A-0	A-60	A-60	A-60	A-0	A-0	A-60	A-60	A-60	A-60
Trappe.....	(2)		A-0	A-0	A-0	A-0	A-15 A-0	A-30 A-0	A-60 A-15	A-0	A-0	A-30	A-60	A-15 A-0	A-60
Gange.....	(3)			A-0	A-0	A-0	A-0	A-30 A-0	A-30 A-0	A-0	A-0	A-30	A-60	A-15 A-0	A-60
Reddingsboot- en reddingsvlothanterings- en inskeepposte	(4)					—	A-0	A-0	A-0	A-0	A-0	A-0	A-60	A-0	A-60
Oop dekruimtes.....	(5)					—	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Akkommodasieruimtes met klein brandrisiko	(6)						A-15 A-0	A-30 A-30	A-30 A-0	A-0	A-0	A-15 A-0	A-30	A-15 A-0	A-30
Akkommodasieruimtes met matige brandrisiko	(7)							A-30 A-0	A-60 A-15	A-0	A-0	A-30 A-0	A-60	A-30 A-0	A-60
Akkommodasieruimtes met 'n groot brandrisiko	(8)								A-60 A-15	A-0	A-0	A-60 A-15	A-60	A-30 A-0	A-60
Sanitêre en soortgelyke ruimtes	(9)									A-0	A-0	A-0	A-0	A-0	A-0

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Ruimtes		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Tenke, leë ruimtes en hulpmasjinerieruimtes met min of geen brandrisiko	(10)										A-0	A-0	A-0	A-0	A-0
Hulpmasjinerieruimtes, vragruime spesiale kategorie -ruimtes, vrag- en ander olietenks en ander derglike ruimtes met 'n matige brandrisiko	(11)											A-0	A-60	A-0	A-60
Masjinerieruimtes en hoofgange	(12)												A-60	A-30[2] A-15	A-30
Pakkamers, werkswinkels, spense, ens.	(13)													A-0	A-30
Ander ruimtes waarin ontvlambare vloeistowwe geberg word	(14)														A-60

TABEL 2.—BESKOTTE WAT NOG VERTIKALE NOG HORISONTALE HOOFSONES BEGRENS

Ruimtes		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Beheerposte.....	(1)	B-0[1]	A-0	A-0	A-0	A-0 B-0	A-60	A-60	A-60	A-0	A-0	A-60	A-60	A-60	A-60
Trappe.....	(2)		A-0[1]	A-0	A-0	A-0	A-0	A-15 A-0	A-30 A-0	A-0	A-0	A-15	A-30	A-15 A-0	A-30
Gange.....	(3)			C	A-0	A-0 B-0	B-0	B-15 B-0	B-15 B-0	B-0	A-0	A-15	A-30	A-0	A-30 A-0
Reddingsboot- en reddingsvlothanterings- en inskeepposte	(4)				—	—	A-0	A-0	A-0	A-0	A-0	A-0	A-15	A-0	A-15 A-0
Oop dekruimtes.....	(5)					—	A-0 B-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0	A-0	A-0	A-0 B-0	A-0 B-0
Akkommodasieruimtes met klein brandrisiko	(6)						B-0 C	B-15 C	B-15 C	B-0 C	A-0	A-15 A-0	A-30	A-0	A-30 A-0
Akkommodasieruimtes met matige brandrisiko	(7)							B-15 C	B-15 C	B-0 C	A-0	A-15 A-0	A-60	A-15 A-0	A-60 A-15
Akkommodasieruimtes met 'n groot brandrisiko	(8)								B-15 C	B-0 C	A-0	A-30 A-0	A-60	A-15 A-0	A-60 A-15
Sanitêre en soortgelyke ruimtes	(9)									C	A-0	A-0	A-0	A-0	A-0
Tenke, leë ruimtes en hulpmasjinerieruimtes met min of geen brandrisiko	(10)										A-0[1]	A-0	A-0	A-0	A-0
Hulpmasjinerieruimtes, vragruime spesiale kategorie- ruimtes, vrag- en ander olietenks en ander derglike ruimtes met 'n matige brandrisiko	(11)											A-0[1]	A-0	A-0	A-30[2] A-15
Masjinerieruimtes en hoofgange	(12)												A-0	A-0	A-60
Pakkamers, werkswinkels, spense, ens.	(13)													A-0[1]	A-0
Ander ruimtes waarin ontvlambare vloeistowwe geberg word	(14)														A-30[2] A-15

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

TABEL 3.—DEKKE WAT IN VERTIKALE HOOFSONES TRAPPE VORM OF WAT HORISONTALE SONES BEGRENS

Ruimte		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Beheerposte.....	(1)	A-60	A-60	A-30	A-0	A-0	A-15	A-30	A-60	A-0	A-0	A-30	A-60	A-15	A-60
Trappe.....	(2)	A-15	A-0	A-0	A-0	A-0	A-0	A-15 A-0	A-15 A-0	A-0	A-0	A-0	A-60	A-0	A-60
Gange.....	(3)	A-30	A-0	A-0	A-0	A-0	A-0	A-15 A-0	A-15 A-0	A-0	A-0	A-0	A-60	A-0	A-60
Reddingsboot- en reddingsvlothanterings- en inskeepposte	(4)	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Oop dekruimtes.....	(5)	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Akkommodasieruimtes met klein brandrisiko	(6)	A-60	A-30 A-0	A-15 A-0	A-0	A-0	A-0	A-15 A-0	A-30 A-0	A-0	A-0	A-15 A-0	A-15	A-0	A-15
Akkommodasieruimtes met matige brandrisiko	(7)	A-60	A-60 A-15	A-30 A-0	A-15 A-0	A-0	A-15 A-0	A-30 A-0	A-60 A-15	A-0	A-0	A-30 A-0	A-30	A-0	A-30
Akkommodasieruimtes met 'n groot brandrisiko	(8)	A-60	A-60 A-15	A-60 A-15	A-60 A-15	A-0	A-30 A-0	A-60 A-15	A-60 A-15	A-0	A-0	A-30 A-0	A-60	A-15 A-0	A-60
Sanitêre en soortgelyke ruimtes	(9)	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Tenke, leë ruimtes en hulpmasjinerieruimtes met min of geen brandrisiko	(10)	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Hulpmasjinerieruimtes, vragruime spesiale kategorie -ruimtes, vrag- en ander olietenks en ander derglike ruimtes met 'n matige brandrisiko	(11)	A-60	A-60	A-60	A-60	A-0	A-30 A-0	A-60 A-15	A-60 A-15	A-0	A-0	A-0	A-30	A-30[2] A-0	A-30
Masjinerieruimtes en hoofgange	(12)	A-60	A-60	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0	A-60	A-60	A-60	A-60
Pakkamers, werkswinkels, spense, ens.	(13)	A-60	A-60 A-15	A-30 A-0	A-15	A-0	A-15 A-0	A-30 A-0	A-60 A-15	A-0	A-0	A-0	A-30	A-0	A-30
Ander ruimtes waarin ontvlambare vloeistowwe geberg word	(14)	A-60	A-60	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0	A-60	A-60	A-60	A-60

TABEL 4.—BESKOTTE WAT VERTIKALE EN HORISONTALE HOOFSONES BEGRENS

Ruimte		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Beheerposte.....	(1)	A-30 A-0	A-30 A-0	A-15 A-0	A-0	A-0 B-0	A-0	A-15 A-0	A-30 A-0	A-0	A-0	A-0	A-60	A-0	A-60 A-15
Trappe.....	(2)	A-0	A-0	A-0	A-0	A-0 B-0	A-0	A-0	A-0	A-0	A-0	A-0	A-30	A-0	A-30 A-0
Gange.....	(3)	A-15 A-0	A-0	A-0[1] B-0[1]	A-0	A-0 B-0	A-0 B-0	A-15 B-0	A-15 B-0	A-0 B-0	A-0	A-0	A-30	A-0	A-30 A-0
Reddingsboot- en reddingsvlothanterings- en inskeepposte	(4)	A-0	A-0	A-0	A-0	—	A-0 B-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0	A-0	A-0	A-0	A-0
Oop dekruimtes.....	(5)	A-0	A-0	A-0 B-0	A-0	—	A-0 B-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0	A-0	A-0	A-0 B-0	A-0
Akkommodasieruimtes met klein brandrisiko	(6)	A-60	A-15 A-0	A-0	A-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0	A-0	A-15 A-0	A-0	A-15 A-0
Akkommodasieruimtes met matige brandrisiko	(7)	A-60	A-30 A-0	A-15 A-0	A-15 A-0	A-0 B-0	A-0 B-0	A-15 B-0	A-30 B-0	A-0 B-0	A-0	A-15 A-0	A-30 A-0	A-0	A-30 A-0
Akkommodasieruimtes met 'n groot brandrisiko	(8)	A-60	A-60 A-15	A-60 A-0	A-30 A-0	A-0 B-0	A-15 B-0	A-30 B-0	A-60 B-0	A-0 B-0	A-0	A-30 A-0	A-30 A-0	A-0	A-30 A-0

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Ruimtes		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Sanitêre en soortgelyke ruimtes	(9)	A-0	A-0	A-0 B-0	A-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0	A-0	A-0	A-0	A-0
Tenke, leë ruimtes en hulpmasjinerie ruimtes met min of geen brandrisiko	(10)	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0[1]	A-0	A-0	A-0	A-0
Hulpmasjinerieruimtes, vragruime spesiale kategorie -ruimtes, vrag- en ander olietenks en ander derglike ruimtes met 'n matige brandrisiko	(11)	A-60	A-60 A-15	A-60 A-15	A-30 A-0	A-0	A-0	A-15 A-0	A-30 A-0	A-0	A-0	A-0[1]	A-0	A-0	A-30[2] A-15
Masjinerieruimtes en hoofgange	(12)	A-60	A-60	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0	A-30	A-30[1]	A-0	A-60
Pakkamers, werkswinkels, spense ens.	(13)	A-60	A-30 A-0	A-15 A-0	A-15 A-0	A-0 B-0	A-15 A-0	A-30 A-0	A-30 A-0	A-0 B-0	A-0	A-0	A-0	A-0	A-15[2] A-0
Ander ruimtes waarin ontvlambare vloeistowwe geberg word.	(14)	A-60	A-60 A-30	A-60 A-30	A-60	A-0	A-30 A-0	A-60 A-15	A-60 A-15	A-0	A-0	A-30[2] A-0	A-30[2] A-0	A-0	A-30[2] A-0

TABLE 1.—BULKHEADS BOUNDING MAIN VERTICAL ZONES OR HORIZONTAL ZONES

Spaces		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Control stations.....	(1)	A-60	A-30	A-30	A-0	A-0	A-60	A-60	A-60	A-0	A-0	A-60	A-60	A-60	A-60
Stairways.....	(2)		A-0	A-0	A-0	A-0	A-15 A-0	A-30 A-0	A-60 A-15	A-0	A-0	A-30	A-60	A-15 A-0	A-60
Corridors.....	(3)			A-0	A-0	A-0	A-0	A-30 A-0	A-30 A-0	A-0	A-0	A-30	A-60	A-15 A-0	A-60
Lifeboat and liferaft handling and embarkation stations	(4)				—	—	A-0	A-0	A-0	A-0	A-0	A-0	A-60	A-0	A-60
Open deck spaces.....	(5)					—	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Accommodation spaces of minor fire risk	(6)						A-15 A-0	A-30 A-0	A-30 A-0	A-0	A-0	A-15 A-0	A-30	A-15 A-0	A-30
Accommodation spaces of moderate fire risk	(7)							A-30 A-0	A-60 A-15	A-0	A-0	A-30 A-0	A-60	A-30 A-0	A-60
Accommodation spaces of greater fire risk	(8)								A-60 A-15	A-0	A-0	A-60 A-15	A-60	A-30 A-0	A-60
Sanitary and similar spaces	(9)									A-0	A-0	A-0	A-0	A-0	A-0
Tanks, voids and auxiliary machinery spaces having little or no fire risk	(10)										A-0	A-0	A-0	A-0	A-0
Auxiliary machinery spaces, cargo spaces, special category spaces, cargo and other oil tanks and other similar spaces of moderate fire risk	(11)											A-0	A-60	A-0	A-60
Machinery spaces and main galleys	(12)												A-60	A-30[2] A-15	A-60
Store-rooms, workshops, pantries, etc.	(13)													A-0	A-30
Other spaces in which inflammable liquids are stowed	(14)														A-60

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

TABLE 2.—BULKHEADS NOT BOUNDING EITHER MAIN VERTICAL ZONES OR HORIZONTAL ZONES

Spaces		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Control stations.....	(1)	B-0[1]	A-0	A-0	A-0	A-0 B-0	A-60	A-60	A-60	A-0	A-0	A-60	A-60	A-60	A-60
Stairways.....	(2)		A-0[1]	A-0	A-0	A-0	A-0	A-15 A-0	A-30 A-0	A-0	A-0	A-15	A-30	A-15 A-0	A-30
Corridors.....	(3)			C	A-0	A-0 B-0	B-0	B-15 B-0	B-15 B-0	B-0	A-0	A-15	A-30	A-0	A-30 A-0
Lifeboat and liferaft handling and embarkation stations	(4)				—	—	A-0	A-0	A-0	A-0	A-0	A-0	A-15	A-0	A-15 A-0
Open deck space.....	(5)					—	A-0 B-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0	A-0	A-0	A-0 B-0	A-0 B-0
Accommodation spaces of minor fire risk	(6)						B-0 C	B-15 C	B-15 C	B-0 C	A-0	A-15 A-0	A-30	A-0	A-30 A-0
Accommodation spaces of moderate fire risk	(7)							B-15 C	B-15 C	B-0 C	A-0	A-15 A-0	A-60	A-15 A-0	A-60 A-15
Accommodation spaces of greater fire risk	(8)								B-15 C	B-0 C	A-0	A-30 A-0	A-60	A-15 A-0	A-60 A-15
Sanitary and similar spaces	(9)									C	A-0	A-0	A-0	A-0	A-0
Tanks, voids and auxiliary machinery spaces having little or no fire risk	(10)										A-0[1]	A-0	A-0	A-0	A-0
Auxiliary machinery spaces, cargo spaces, cargo and other oil tanks and other similar spaces of moderate fire risk	(11)											A-0[1]	A-0	A-0	A-30[2] A-15
Machinery spaces and main galleys	(12)												A-0	A-0	A-60
Store-rooms, workshops, pantries, etc.	(13)													A-0[1]	A-0
Other spaces in which inflammable liquids are stowed	(14)														A-30[2] A-15

TABLE 3.—DECKS FORMING STEPS IN MAIN VERTICAL ZONES OR BOUNDING HORIZONTAL ZONES

Space below ↓ Space above→		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Control stations.....	(1)	A-60	A-60	A-30	A-0	A-0	A-15	A-30	A-60	A-0	A-0	A-30	A-60	A-15	A-60
Stairways.....	(2)	A-15	A-0	A-0	A-0	A-0	A-0	A-15 A-0	A-15 A-0	A-0	A-0	A-0	A-60	A-0	A-60
Corridors.....	(3)	A-30	A-0	A-0	A-0	A-0	A-0	A-15 A-0	A-15 A-0	A-0	A-0	A-0	A-60	A-0	A-60
Lifeboat and liferaft handling and embarkation stations	(4)	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Open deck spaces.....	(5)	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Accommodation spaces of minor fire risk	(6)	A-60	A-30 A-0	A-15 A-0	A-0	A-0	A-0	A-15 A-0	A-30 A-0	A-0	A-0	A-15 A-0	A-15	A-0	A-15
Accommodation spaces of moderate fire risk	(7)	A-60	A-60 A-15	A-30 A-0	A-15 A-0	A-0	A-15 A-0	A-30 A-0	A-60 A-15	A-0	A-0	A-30 A-0	A-30	A-0	A-30
Accommodation spaces of greater fire risk	(8)	A-60	A-60 A-15	A-60 A-15	A-60 A-15	A-0	A-30 A-0	A-60 A-15	A-60 A-15	A-0	A-0	A-30 A-0	A-60	A-15 A-0	A-60

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Space below ↓ Space above→															
Sanitary and similar spaces	(9)	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Tanks, voids and auxiliary machinery spaces having little or no fire risk	(10)	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Auxiliary machinery spaces, cargo spaces, special category spaces, cargo and other oil tanks and other similar spaces of moderate fire risk	(11)	A-60	A-60	A-60	A-60	A-0	A-30 A-0	A-60 A-15	A-60 A-15	A-0	A-0	A-0	A-30	A-30[2] A-0	A-30
Machinery spaces and main galleys	(12)	A-60	A-60	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0	A-60	A-60	A-60	A-60
Store-rooms, workshops, pantries, etc.	(13)	A-60	A-60 A-15	A-30 A-0	A-15	A-0	A-15 A-0	A-30 A-0	A-60 A-15	A-0	A-0	A-0	A-30	A-0	A-30
Other spaces in which inflammable liquids are stowed	(14)	A-60	A-60	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0	A-60	A-60	A-60	A-60

TABLE 4.—DECKS NOT FORMING STEPS IN MAIN VERTICAL ZONES NOR BOUNDING HORIZONTAL ZONES

Space below ↓ Space above→		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Control stations.....	(1)	A-30 A-0	A-30 A-0	A-15 A-0	A-0	A-0 B-0	A-0	A-15 A-0	A-30 A-0	A-0	A-0	A-0	A-60	A-0	A-60 A-15
Stairways.....	(2)	A-0	A-0	A-0	A-0	A-0 B-0	A-0	A-0	A-0	A-0	A-0	A-0	A-30	A-0	A-30 A-0
Corridors.....	(3)	A-15 A-0	A-0	A-0[1] B-0[1]	A-0	A-0 B-0	A-0 B-0	A-15 B-0	A-15 B-0	A-0 B-0	A-0	A-0	A-30	A-0	A-30 A-0
Lifeboat and liferaft handling and embarkation stations	(4)	A-0	A-0	A-0	A-0	—	A-0 B-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0	A-0	A-0	A-0	A-0
Open deck spaces.....	(5)	A-0	A-0	A-0 B-0	A-0	—	A-0 B-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0	A-0	A-0	A-0 B-0	A-0
Accommodation spaces of minor fire risk	(6)	A-60	A-15 A-0	A-0	A-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0	A-0	A-15 A-0	A-0	A-15 A-0
Accommodation spaces of moderate fire risk	(7)	A-60	A-30 A-0	A-15 A-0	A-15 A-0	A-0 B-0	A-0 B-0	A-15 B-0	A-30 B-0	A-0 B-0	A-0	A-15 A-0	A-30 A-0	A-0	A-30 A-0
Accommodation spaces of greater fire risk	(8)	A-60	A-60 A-15	A-60 A-0	A-30 A-0	A-0 B-0	A-15 B-0	A-30 B-0	A-60 B-0	A-0 B-0	A-0	A-30 A-0	A-30 A-0	A-0	A-30 A-0
Sanitary spaces and similar spaces	(9)	A-0	A-0	A-0 B-0	A-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0 B-0	A-0	A-0	A-0	A-0	A-0
Tanks, voids and auxiliary machinery spaces having little or no fire risk	(10)	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0[1]	A-0	A-0	A-0	A-0
Auxiliary machinery spaces, cargo spaces, cargo and other oil tanks and other similar spaces of moderate fire risk	(11)	A-60	A-60 A-15	A-60 A-15	A-30 A-0	A-0	A-0	A-15 A-0	A-30 A-0	A-0	A-0	A-0[1]	A-0	A-0	A-30[2] A-15
Machinery spaces and main galleys	(12)	A-60	A-60	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0	A-30	A-30[1]	A-0	A-60
Store-rooms, workshops, pantries, etc.	(13)	A-60	A-30 A-0	A-15 A-0	A-15 A-0	A-0 B-0	A-15 A-0	A-30 A-0	A-30 A-0	A-0 B-0	A-0	A-0	A-0	A-0	A-15[2] A-0
Other spaces in which inflammable liquids are stowed	(14)	A-60	A-60 A-30	A-60 A-30	A-60	A-0	A-30 A-0	A-60 A-15	A-60 A-15	A-0	A-0	A-30[2] A-0	A-30[2] A-0	A-0	A-30[2] A-0

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 21

Nooduitgange

(a) In en vanuit alle passasiers- en bemanningsruimtes en in ruimtes waarin die bemanning normaalweg diens doen, masjienruimtes uitgesonderd, moet trappe en lere geplaas wees om as vinnige ontsnappingsmiddels te dien na die reddingsboot- en reddingsvlotinskepingsdek. Daar moet in besonder aan die volgende vereistes voldoen word:

(i) Onder die beskotdek moet daar vanuit elke waterdigte kompartement of dergelike beperkte ruimte of groep ruimtes twee ontsnaproetes voorsien word, waarvan minstens een vry van waterdigte deure moet wees. By uitsondering kan die Administrasie afsien van een van die ontsnappingsroetes, met behoorlike inagneming van die aard en ligging van die ruimtes en van die getal persone wat normaalweg daar gehuisves mag word of diens mag doen.

(ii) Bo die beskotdek moet daar vanuit elke vertikale sone of derglike beperkte ruimte of groep ruimtes minstens twee ontsnappingsroetes wees waarvan minstens een toegang moet verleen tot 'n trap wat 'n vertikale ontsnappingsroete vorm.

(iii) Minstens een van die ontsnappingsmiddele wat ingevolge subparagrawe (a) (i) en (ii) van hierdie Regulasie vereis word, moet wees by wyse van 'n maklik toeganklike omslote trap wat deurlopende brandbeskerming verleen van waar hy begin tot by die betrokke reddingsboot- en reddingsvlotinskepingsdekke of die hoogste vlak wat deur die trap bedien word, wat ook al die hoogste is. Waar 'n Administrasie egter vrystelling verleen het ooreenkomstig die bepalinge van subparagraaf (a) (i) van hierdie Regulasie, moet die enkele ontsnappingsroete vir veilige ontsnapping voorsiening maak tot bevrediging van die Administrasie. Die wydte, aantal en deurlopendheid van die trappe moet die Administrasie se goedkeuring wegdra.

(iv) Die beskerming van die toegang vanaf die trapomsluiting na die reddingsboot- en reddingsvlotinskeepgebied moet die Administrasie se goedkeuring wegdra.

(v) Hysers moet nie geag word een van die vereiste ontsnappingsmiddele te wees nie.

(vi) Trappe wat slegs 'n ruimte en 'n balkon binne daardie ruimte bedien, moet nie geag word een van die vereiste ontsnappingsmiddele te wees nie.

(vii) Indien 'n radiotelegraafpos geen direkte toegang tot die oop dek het nie, moet daar twee ontsnappingsmiddele vanuit so 'n pos voorsien word.

(viii) Doodloopgange van langer as 13 meter (43 voet) moet nie toegelaat word nie.

(b) (i) By spesiale kategorie-ruimtes moet die getal en aard van die ontsnappingsmiddele onder sowel as bo die beskotdek die Administrasie se goedkeuring wegdra, en oor die algemeen moet die veiligheid van toegang tot die inskepingsdek ten minste ekwivalent wees aan dié waarvoor subparagrawe (a) (i), (ii), (iii), (iv) en (v) van hierdie regulasie voorsiening maak.

(ii) Een van die ontsnappingsroetes vanuit die masjinerieruimtes waar die bemanning normaalweg diens doen, moet direkte toegang tot enige spesiale kategorieruimte vermy.

REGULATION 21

Means of escape

(a) In and from all passenger and crew spaces and in spaces in which the crew is normally employed, other than machinery spaces, stairways and ladders shall be arranged to provide ready means of escape to the lifeboat and liferaft embarkation deck. In particular the following provisions shall be complied with:

(i) Below the bulkhead deck, two means of escape, at least one of which shall be independent of watertight doors, shall be provided from each watertight compartment or similarly restricted space or group of spaces. Exceptionally, the Administration may dispense with one of the means of escape, due regard being paid to the nature and location of spaces and to the number of persons who normally might be quartered or employed there.

(ii) Above the bulkhead deck, there shall be at least two means of escape from each main vertical zone or similarly restricted space or group of spaces at least one of which shall give access to a stairway forming a vertical escape.

(iii) At least one of the means of escape required by subparagraphs (a) (i) and (ii) of this Regulation shall be by means of a readily accessible enclosed stairway, which shall provide continuous fire shelter from the level of its origin to the appropriate lifeboat and liferaft embarkation decks or the highest level served by the stairway, whichever level is the highest. However, where an Administration has granted dispensation under the provisions of subparagraph (a) (i) of this Regulation the sole means of escape shall provide safe escape to the satisfaction of the Administration. The width, number and continuity of the stairways shall be to the satisfaction of the Administration.

(iv) Protection of access from the stairway enclosures to the lifeboat and liferaft embarkation areas shall be to the satisfaction of the Administration.

(v) Lifts shall not be considered as forming one of the required means of escape.

(vi) Stairways serving only a space and a balcony in that space shall not be considered as forming one of the required means of escape.

(vii) If a radiotelegraph station has no direct access to the weather deck, two means of escape shall be provided from such station.

(viii) Dead-end corridors exceeding 13 metres (43 feet) shall not be permitted.

(b) (i) In special category spaces the number and disposition of the means of escape both below and above the bulkhead deck shall be to the satisfaction of the Administration, and in general the safety of access to the embarkation deck shall be at least equivalent to that provided for under subparagraphs (a) (i), (ii), (iii), (iv) and (v) of this Regulation.

(ii) One of the escape routes from the machinery spaces where the crew is normally employed shall avoid direct access to any special category space.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(c) Twee ontsnappingsmiddele moet vanuit elke masjinerieruimte voorsien word. In besonder moet daar aan die volgende vereistes voldoen word:

(i) Waar die ruimte onder die beskotdek is, moet die twee ontsnappingsmiddele bestaan uit òf—

(1) twee staallere, so ver van mekaar verwyder as moontlik, wat na eweneens geskeide deure bo in die ruimte lei waarvandaan toegang verleen word na die betrokke reddingsboot- en reddingsvlotinskepingsdekke. Een van die lere moet deurlopende brandbeskerming verleen vanaf die onderpunt van die ruimte tot by 'n veilige plek buite die ruimte; òf

(2) een staalleer wat lei na 'n deur in die ruimte, vanwaar toegang verleen word tot die inskepingsdek, en 'n staaldeur wat van beide kante af gebruik kan word en wat 'n veilige ontsnappingsroete na die inskepingsdek voorsien.

(ii) Waar die ruimte bo die beskotdek is, moet twee ontsnappingsmiddele so ver moontlik geskei wees en die deure wat vanaf sodanige ontsnappingsmiddele lei, moet in 'n posisie wees vanwaar toegang verskaf word tot die betrokke reddingsboot- en reddingsvlotinskepingsdekke. Waar sulke roetes lere vereis, moet hulle van staal wees.

Met dien verstande dat die Administrasie ten opsigte van 'n skip van kleiner as 1 000 ton bruto tonnemaat kan afsien van een van die ontsnappingsmiddels na behoorlike inagneming van die wydte en inrigting van die boonste deel van die ruimte; en ten opsigte van 'n skip van 1 000 ton bruto tonnemaat of groter die Administrasie kan afsien van een van die ontsnappingsmiddels vanuit enige sodanige ruimte solank òf 'n deur òf 'n leer 'n veilige ontsnappingsroete bied na die inskepingsdek, na behoorlike inagneming van die aard en posisie van die ruimte en daarvan of persone normaalweg in daardie ruimte diens doen.

REGULASIE 22

Beskerming van trappe en hysers in akkommodasie- en diensruimtes

(a) Alle trappe moet met staalrame gebou wees, behalwe waar die Administrasie die gebruik van ander ekwivalente materiaal goedkeur, en moet binne omsluitings bestaande uit Klas "A"-indelings wees, met vaste sluitingsmiddele by alle openinge, behalwe dat—

(i) 'n trap wat net twee dekke verbind nie omsluit hoef te wees nie, solank die integriteit van die dek gehandhaaf word deur behoorlike beskotte of deure by een tussendekse ruimte. Wanneer 'n trap by een tussendekse ruimte gesluit word moet die trapomsluiting beskerm word ooreenkomstig die tabelle vir dekke in Regulasie 20 van die Hoofstuk;

(ii) trappe oop aangebring kan word in 'n openbare ruimte solank hulle geheel en al binne sodanige ruimte geleë is.

(b) Trapomsluitings moet direkte toegang tot die gange verleen en groot genoeg wees om samedromming te verhoed met inagneming van die getal persone wat hulle waarskynlik in 'n noodgeval kan gebruik. Sover doenlik moet trapomsluitings nie direkte toegang verleen tot kajuite, dienssluitkaste of ander omslote ruimtes met brandbare stowwe waar brande waarskynlik kan ontstaan nie.

(c) Two means of escape shall be provided from each machinery space. In particular, the following provisions shall be complied with:

(i) Where the space is below the bulkhead deck the two means of escape shall consist of either—

(1) two sets of steel ladders as widely separated as possible, leading to doors in the upper part of the space similarly separated and from which access is provided to the appropriate lifeboat and liferaft embarkation decks. One of these ladders shall provide continuous fire shelter from the lower part of the space to a safe position outside the space; or

(2) one steel ladder leading to a door in the upper part of the space from which access is provided to the embarkation deck and a steel door capable of being operated from each side and which provides a safe escape route to the embarkation deck.

(ii) Where the space is above the bulkhead deck, two means of escape shall be as widely separated as possible and the doors leading from such means of escape shall be in a position from which access is provided to the appropriate lifeboat and liferaft embarkation decks. Where such escapes require the use of ladders these shall be of steel.

Provided that in a ship of less than 1 000 tons gross tonnage, the Administration may dispense with one of the means of escape due regard being paid to the width and disposition of the upper part of the space; and in a ship of 1 000 tons gross tonnage and above, the Administration may dispense with one means of escape from any such space so long as either a door or a steel ladder provides a safe escape route to the embarkation deck due regard being paid to the nature and location of the space and whether persons are normally employed in that space.

REGULATION 22

Protection of stairways and lifts in accommodation and service spaces

(a) All stairways shall be of steel frame construction except where the Administration sanctions the use of other equivalent material, and shall be within enclosures formed of "A" Class divisions, with positive means of closure at all openings, except that—

(i) a stairway connecting only two decks need not be enclosed, provided the integrity of the deck is maintained by proper bulkheads or doors at one between deck space. When a stairway is closed at one between deck space, the stairway enclosure shall be protected in accordance with the tables for decks in Regulation 20 of this Chapter;

(ii) stairways may be fitted in the open in a public space, provided they lie wholly within such public space.

(b) Stairway enclosures shall have direct communication with the corridors and be of sufficient area to prevent congestion, having in view the number of persons likely to use them in an emergency. In so far as practicable, stairway enclosures shall not give direct access to cabins, service lockers, or other enclosed spaces containing combustibles in which a fire is likely to originate.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(c) Hyserskagte moet toegerus wees om die deurgang van rook en vlamme van die een dek na die ander te verhoed en moet voorsien wees van sluitmiddele ten einde die beheer van lugtrek en rook moontlik te maak.

REGULASIE 23

Openinge in Klas "A"-verdelings

(a) Waar Klas "A"-verdelings deurdring word vir die deurgang van elektriese kabels, pype, skagte, kanale, ensovoorts, vir leêrs, balke of ander strukture, moet maatreëls getref word om te verseker dat die brandweerstand nie belemmer word nie, onderworpe aan die bepalings van paragraaf (g) van hierdie Regulasie.

(b) Waar 'n ventilasiekanaal noodsaaklikerwys deur 'n vertikale hoofsonebeskot loop, moet 'n faalvrye outomatiessluitende branddemper aangrensend aan die beskot aangebring word. Die demper moet ook van weerskante van die beskot af met die hand toegemaak kan word. Die beheerposisie moet maklik toeganklik en in 'n weerkaatsende rooi kleur gemerk wees. Die kanaal tussen die beskot en die demper moet van staal of ander ekwivalente materiaal wees, en indien nodig volgens 'n isoleringstandaard ooreenkomstig paragraaf (a) van hierdie regulasie. Die demper moet aan minstens een kant van die beskot toegerus wees met 'n sigbare aanwyser wat toon of die demper oop is.

(c) Met die uitsondering van luike tussen vrag-, spesiale kategorie-, pak- en bagasieruimtes, en tussen sodanige ruimtes en die oop dekke, moet alle openinge toegerus wees met permanent-aangehegte sluitmiddele wat ten minste so doeltreffend ten opsigte van brandweerstand is as die verdelings waarin hulle geïnstalleer is.

(d) Die konstruksie van alle deure en kosyne in Klas "A"-verdelings tesame met hulle bevestigingsmiddele wanneer hulle toe is, moet sover doenlik weerstand teen brand sowel as teen die deurgang van rook en vlamme bied ekwivalent aan dié van die beskotte waarin hulle geleë is. Sulke deure en kosyne moet van staal of ander ekwivalente materiaal wees. Waterdigte deure hoef nie geïsoleer te word nie.

(e) Dit moet moontlik wees vir net een persoon om elke deur van weerskante van die beskot af oop en toe te maak.

(f) Branddeure in vertikale hoofsonebeskotte en trapomsluitings, behalwe kragbeheerde waterdigte deure en dié wat normaalweg gesluit is, moet van die selfsluitende tipe wees wat in staat is om toe te gaan teen 'n helling van 3½ grade teenoor die geslote posisie. Die sluitingsnelheid van die deure moet indien nodig beheer word om die personeel nie onnodig in gevaar te stel nie. Alle sodanige deure, behalwe dié wat normaalweg gesluit is, moet in staat wees om gelyktydig of in groepe vanaf 'n beheerpos losgelaat te word. Die loslatingsmeganisme moet só ontwerp wees dat die deur outomaties sal sluit ingeval van 'n ontwrigting van die beheerstelsel; goedgekeurde kragbeheerde waterdigte deure moet egter vir dié doel as aanneemlik beskou word. Vashouerhake wat nie deur die beheerpos losgelaat kan word nie, moet nie toegelaat word nie. Indien dubbelswaaideure toegelaat word, moet hulle 'n sluitknipinrigting hê wat outomaties sluit met gebruik van die deurloslatingstelsel.

(g) Waar 'n ruimte beskerm word deur 'n outomatiese sproeierstelsel wat voldoen aan die vereistes van Regulasie 12 van hierdie Hoofstuk of toegerus is met 'n deurlopende Klas "B"-plafon, moet openinge in

(c) Lift truncks shall be so fitted as to prevent the passage of smoke and flame from one between deck to another and shall be provided with means of closing so as to permit the control of draught and smoke.

REGULATION 23

Openings in "A" Class divisions

(a) Where "A" Class divisions are pierced for the passage of electric cables, pipes, trunks, ducts, etc., for girders, beams or other structures, arrangements shall be made to ensure that the fire resistance is not impaired, subject to the provisions of paragraph (g) of this Regulation.

(b) Where of necessity, a ventilation duct passes through a main vertical zone bulkhead, a fail-safe automatic closing fire damper shall be fitted adjacent to the bulkhead. The damper shall also be capable of being manually closed from each side of the bulkhead. The operating position shall be readily accessible and be marked in red light-reflecting colour. The duct between the bulkhead and the damper shall be of steel or other equivalent material and, if necessary, to an insulating standard such as to comply with paragraph (a) of this Regulation. The damper shall be fitted on at least one side of the bulkhead with a visible indicator showing if the damper is in the open position.

(c) Except for hatches between cargo, special category, store, and baggage spaces, and between such spaces and the weather decks, all openings shall be provided with permanently attached means of closing which shall be at least as effective for resisting fires as the divisions in which they are fitted.

(d) The construction of all doors and door frames in "A" Class divisions, with the means of securing them when closed, shall provide resistance to fire as well as to the passage of smoke and flame, as far as practicable, equivalent to that of the bulkheads in which the doors are situated. Such doors and door frames shall be constructed of steel or other equivalent material. Watertight doors need not be insulated.

(e) It shall be possible for each door to be opened and closed from each side of the bulkhead by one person only.

(f) Fire doors in main vertical zone bulkheads and stairway enclosures, other than power-operated watertight doors and those which are normally locked, shall be of the self-closing type capable of closing against an inclination of 3½ degrees opposing closure. The speed of door closure shall, if necessary, be controlled so as to prevent undue danger to personnel. All such doors, except those that are normally closed, shall be capable of release from a control station, either simultaneously or in groups, and also individually from a position at the door. The release mechanism shall be so designed that the door will automatically close in the event of disruption of the control system; however, approved power-operated watertight doors will be considered acceptable for this purpose. Hold-back hooks, not subject to control station release, will not be permitted. When double swing doors are permitted, they shall have a latch arrangement which is automatically engaged by the operation of the door release system.

(g) Where a space is protected by an automatic sprinkler system complying with the provisions of Regulation 12 of this Chapter or fitted with a continuous "B" Class ceiling, openings in decks not forming steps

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

dekke wat nie trappe in vertikale hoofsones vorm of horisontale sones begrens nie, redelik styf toegemaak word, en sodanige dekke moet voldoen aan die Klas "A"-integriteitsvereistes vir sover dit na die mening van die Administrasie redelik en doenlik is.

(h) Die vereistes van die Klas "A"-integriteit ten opsigte van die buitenste grense van 'n skip geld nie ten opsigte van glasafskortings, vensters en sy-patryspoorte nie. So is die vereistes ten opsigte van Klas "A"-integriteit ook nie van toepassing op buitedeure in die bobou of dekhuise nie.

REGULASIE 24

Openinge in Klas "B"-verdelings

(a) Waar Klas "B"-verdelings deurdring word vir die deurgang van elektriese kabels, pype, skagte, kanale, ensovoorts of vir die installering van ventilasieaansluitings, vaste ligtoebehore en dergelike inrigtings, moet maatreëls getref word om te verseker dat die brandweerstand nie belemmer word nie.

(b) Deure en kosyne in Klas "B"-verdelings tesame met hulle bevestigingsmiddele moet 'n sluitingsmetode voorsien wat sover doenlik brandweerstand bied ekwivalent aan die verdelings, behalwe dat ventilasieopeninge toegelaat kan word onderaan sulke deure. Waar sodanige opening in of onder 'n deur is, moet die totale netto oppervlakte van sodanige opening of openinge nie 0,05 vierkante meter (78 vierkante duim) oorskry nie. Wanneer so 'n opening in 'n deur gesny word, moet dit toegerus word met 'n rooster van onbrandbare materiaal. Deure moet onbrandbaar wees.

(c) Die vereistes vir Klas "B"-integriteit ten opsigte van die buite-grense van 'n skip, geld nie vir glasafskortings, vensters en kajuite nie. Net so geld die vereistes vir Klas "B"-integriteit ook nie vir die buitedeure van die bobou en dekhuise nie.

(d) Waar 'n outomatiese sproeierstelsel geïnstalleer is wat voldoen aan die vereistes van Regulasie 12 van hierdie Hoofstuk—

(i) moet openinge in dekke wat nie trappe vorm in vertikale hoofsones of horisontale sones begrens nie, redelik dig gesluit word en sodanige dekke moet aan die Klas "B"-integriteitsvereistes voldoen vir sover dit na die mening van die Administrasie redelik en prakties is; en

(ii) moet openinge in gangbeskotte van Klas "B"-materiaal beskerm word ooreenkomstig die bepalings van Regulasie 19 van hierdie Hoofstuk.

REGULASIE 25

Ventilasiestelsels

(a) Oor die algemeen moet die ventilasiewaaiers so gerangskik wees dat die leidings na die onderskeie ruimtes binne die vertikale hoofsone bly.

(b) Waar ventilasiestelsels die dekke deurdring moet daar bo en behalwe die bepalings ten opsigte van die brandintegriteit van die dek, soos vereis deur Regulasie 23 van hierdie Hoofstuk, voorsorgmaatreëls getref word om die waarskynlikheid te verminder dat rook en warm gas van een dek na 'n ander deur die stelsel kan vloei. Bo en behalwe die isoleringsvereistes in hierdie regulasie, moet vertikale leidings indien nodig geïsoleer word ooreenkomstig die betrokke tabelle in Regulasie 20 van hierdie Hoofstuk.

(c) Die hoofinlate en -uitlate van alle ventilasiestelsels moet van buite die geventileerde ruimte af oop- en toegemaak kan word.

in main vertical zones nor bounding horizontal zones shall be closed reasonably tight and such decks shall meet the "A" Class integrity requirements in so far as is reasonable and practicable in the opinion of the Administration.

(h) The requirements for "A" Class integrity of the outer boundaries of a ship shall not apply to glass partitions, windows and sidescuttles. Similarly, the requirements for "A" Class integrity shall not apply to exterior doors in superstructures and deckhouses.

REGULATION 24

Openings in "B" Class divisions

(a) Where "B" Class divisions are penetrated for the passage of electrical cables, pipes, trunks, ducts, etc., or for the fitting of ventilation terminals, lighting fixtures and similar devices, arrangements shall be made to ensure that the fire resistance is not impaired.

(b) Doors and door frames in "B" Class divisions and means of securing them shall provide a method of closure which shall have resistance to fire as far as practicable equivalent to the divisions except that ventilation openings may be permitted in the lower portion of such doors. Where such opening is in or under a door the total net area of any such opening or openings shall not exceed 0,05 square metres (78 square inches). When such opening is cut in a door it shall be fitted with a grill made of non-combustible material. Doors shall be non-combustible.

(c) The requirements for "B" Class integrity of the outer boundaries of a ship shall not apply to glass partitions, windows and sidescuttles. Similarly, the requirements for "B" Class integrity shall not apply to exterior doors in superstructures and deckhouses.

(d) Where an automatic sprinkler system complying with the provisions of Regulation 12 of this Chapter is fitted—

(i) openings in decks not forming steps in main vertical zones nor bounding horizontal zones shall be closed reasonably tight and such decks shall meet the "B" Class integrity requirements in so far as is reasonable and practicable in the opinion of the Administration; and

(ii) openings in corridor bulkheads of "B" Class materials shall be protected in accordance with the provisions of Regulation 19 of this Chapter.

REGULATION 25

Ventilation systems

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

(b) Where ventilation systems penetrate decks, precautions shall be taken, in addition to those relating to the fire integrity of the deck required by Regulation 23 of this Chapter, to reduce the likelihood of smoke and hot gases passing from one between deck space to another through the system. In addition to insulation requirements contained in this Regulation, vertical ducts shall, if necessary, be insulated as required by the appropriate tables in Regulation 20 of this Chapter.

(c) The main inlets and outlets of all ventilation systems shall be capable of being closed from outside the space being ventilated.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(d) Behalwe in vragruime, moet ventilasieleidings van die volgende materiale gemaak wees:

(i) Leidings met 'n deursneeoppervlakte van nie minder nie as 0,075 vierkante meter (116 vierkante duim), sowel as alle vertikale leidings wat meer as 'n enkele tussendekse ruimte bedien, moet van staal of ander ekwivalente materiaal gemaak wees.

(ii) Leidings van minder as 0,075 vierkante meter (116 vierkante duim) deursneeoppervlakte moet van onbrandbare materiaal gemaak wees. Waar sodanige leidings Klas "A"- of "B"-verdelings deurdring, moet behoorlike aandag daaraan geskenk word om die brandintegriteit van die verdeling te verseker.

(iii) Kort lengtes leiding, oor die algemeen nie groter as 0,02 vierkante meter (31 vierkante duim) deursneeoppervlakte of 2 meter (79 duim) lengte nie, hoef nie onbrandbaar te wees nie, solank hulle aan die volgende vereistes voldoen:

(1) Die leiding moet tot bevrediging van die Administrasie gemaak wees van 'n stof met beperkte brandrisiko.

(2) Die leiding moet net aan die eindpunt van die ventilasiestelsel gebruik word.

(3) Die leiding moet nie nader as 0,6 meter (24 duim), gemeet langs sy lengste, geleë wees vanaf 'n deurdringing van 'n Klas "A"- of "B"-verdeling, insluitende deurlopende Klas "B"-plafonne, nie.

(e) Waar 'n trapomsluiting geventileer word, moet die leiding of leidings (as daar is) onafhanklik van ander leidings in die ventilasiestelsel vanuit die waaierkamer geneem word, en moet hulle geen ander ruimte bedien nie.

(f) Alle kragventilasie, behalwe dié in masjinerie- en vragruimtes en enige alternatiewe stelsel wat ingevolge paragraaf (h) van hierdie Regulasie vereis mag word, moet van kontroles voorsien wees wat só gegroepeer is dat alle waaiers afgeskakel kan word vanaf enige van twee afsonderlike posisies wat so ver moontlik uitmekaar geleë moet wees. Kontroles vir die kragventilasie wat masjinerieruimtes bedien, moet ook so gegroepeer wees dat hulle opereerbaar is vanaf twee posisies waarvan een buite sodanige ruimtes moet wees. Waaiers wat kragventilasiestelsels na vragruime bedien, moet afgeskakel kan word vanaf 'n veilige posisie buite sodanige ruimtes.

(g) Waar hulle deur akkommodasieruimtes of ruimtes met brandbare materiaal loop, moet die uitlaatleidings vanaf kombuisgebiede van Klas "A"-verdelings gemaak wees. Elke uitlaatleiding moet toegerus wees met—

(i) 'n vetput wat maklik verwyder kan word om skoon te maak;

(ii) 'n branddemper in die onderend van die leiding;

(iii) middele waarmee die uitlaatwaaier vanuit die kombuis af, afgesluit kan word; en

(iv) vaste middele vir brandblussing binne die leiding.

(h) Prakties-uitvoerbare maatreëls moet getref word ten opsigte van kontroleposte buite masjinerieruimtes ten einde te verseker dat ventilering, sigbaarheid en vryheid van rook gehandhaaf word, sodat die masjinerie en toerusting daarin, ingeval van 'n brand onder toesig kan wees en doeltreffend kan bly funksioneer. Alternatiewe en afsonderlike middele vir lugvoorsiening moet verskaf word; luginlate van die twee toevoerbronne moet so gerangskik wees dat die risiko dat beide inlate gelyktydig rook intrek, tot die minimum beperk

(d) Except in cargo spaces, ventilation ducts shall be constructed of the following materials:

(i) Ducts not less than 0,075 square metres (116 square inches) in sectional area and all vertical ducts serving more than a single between deck space shall be constructed of steel or other equivalent material.

(ii) Ducts less than 0,075 square metres (116 square inches) in sectional area shall be constructed of noncombustible materials. Where such ducts penetrate "A" or "B" Class divisions due regard shall be given to ensuring the fire integrity of the division.

(iii) Short lengths of duct, not in general exceeding 0,02 square metres (31 square inches) in sectional area nor 2 metres (79 inches) in length, need not be incombustible provided that all of the following conditions are met:

(1) The duct is constructed of a material of restricted fire risk to the satisfaction of the Administration;

(2) the duct is used only at the terminal end of the ventilation system; and

(3) the duct is not located closer than 0,6 metres (24 inches) measured along its length to a penetration of an "A" or "B" Class division, including continuous "B" Class ceilings.

(e) Where a stairway enclosure is ventilated, the duct or ducts (if any) shall be taken from the fan room independently of other ducts in the ventilation system and shall not serve any other space.

(f) All power ventilation, except machinery and cargo spaces ventilation and any alternative system which may be required under paragraph (h) of this Regulation, shall be fitted with controls so grouped that all fans may be stopped from either of two separate positions which shall be situated as far apart as practicable. Controls provided for the power ventilation serving machinery spaces shall also be grouped so as to be operable from two positions, one of which shall be outside such spaces. Fans serving power ventilation systems to cargo spaces shall be capable of being stopped from a safe position outside such spaces.

(g) Where they pass through accommodation spaces or spaces containing combustible materials, the exhaust ducts from galley ranges shall be constructed of "A" Class divisions. Each exhaust duct shall be fitted with—

(i) a grease trap readily removable for cleaning;

(ii) a fire damper located in the lower end of the duct;

(iii) arrangements, operable from within the galley, for shutting off the exhaust fan; and

(iv) fixed means for extinguishing a fire within the duct.

(h) Such measures as are practicable shall be taken in respect of control stations outside machinery spaces in order to ensure that ventilation, visibility and freedom from smoke are maintained, so that in the event of fire the machinery and equipment contained therein may be supervised and continue to function effectively. Alternative and separate means of air supply shall be provided; air inlets of the two sources of supply shall be so disposed that the risk of both inlets drawing in smoke simultaneously is minimized. At the discre-

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

word. Na goeddunke van die Administrasie hoef hierdie vereistes nie te geld ten opsigte van kontroleposte wat geleë is of uitgaan op 'n oop dek of waar plaaslike reëlings ewe doeltreffend sal wees nie.

(i) Leidings wat voorsien is vir die ventilering van masjinerieruimtes van Kategorie A moet in die reël nie deur akkommodasieruimtes, diensruimtes of kontroleposte loop nie, behalwe dat die Administrasie 'n verslapping ten opsigte van hierdie vereiste kan toelaat met dien verstande dat—

(i) die leidings van staal gemaak is en geïsoleer is ooreenkomstig die "A 60"-standaard; of

(ii) die leidings van staal gemaak is en voorsien is van 'n outomatiese branddemper digby die grens wat deurdring word en geïsoleer is ooreenkomstig die "A 60"-standard vanaf die masjinerieruimte tot minstens 5 meter (16 voet) anderkant die branddemper.

(j) Leidings wat voorsien is vir die ventilering van akkommodasieruimtes, diensruimtes of beheerposte, moet in die reël nie deur masjinerieruimtes van Kategorie A loop nie, behalwe dat die Administrasie 'n verslapping ten opsigte van hierdie vereiste kan toelaat, solank die leidings van staal gemaak en outomatiese branddempers aangebring is digby die verdelings wat deurdring word.

REGULASIE 26

Vensters en patryspoorte

(a) Alle vensters en patryspoorte in beskotte binne akkommodasieruimtes, diensruimtes, en ander beheerposte as dié waarop die bepaling van paragraaf (h) van Regulasie 23 en paragraaf (c) van Regulasie 24 van hierdie Hoofstuk van toepassing is, moet só gebou wees dat hulle die integriteitsvereistes handhaaf van die tipe beskotte waarin hulle aangebring is.

(b) Nieteenstaande die vereistes van die tabelle in Regulasie 20 van hierdie Hoofstuk moet—

(i) alle vensters en patryspoorte in beskotte wat akkommodasie- en diensruimtes en beheerposte van die buitelug skei, met rame van staal of ander geskikte materiaal gebou wees. Die glas moet met 'n ruitkraallys of hoek van metaal bevestig wees;

(ii) spesiale aandag geskenk word aan die brandintegriteit van vensters teenoor oop of omslote reddingsboot- en reddingsvlotinskeepgebiede en aan vensters onder sodanige gebiede wat sodanig geleë is dat hulle onklaarraking tydens 'n brand die tewaterlating van of skeepgaan op die reddingsbote en -vlotte kan belemmer.

REGULASIE 27

Beperking van brandbare stowwe

(a) Behalwe in vragruime, poskamers, bagasiekamers of koelkompartemente van diensruimtes, moet alle bekledings, vloere, plafonne en isolerings van onbrandbare materiaal wees. Gedeeltelike beskotte of dekke wat gebruik word om 'n ruimte vir gebruiks- of versieringsdoeleindes te verdeel, moet ook van onbrandbare materiaal gemaak wees.

(b) Voglae en kleefstowwe wat in verband met isolering gebruik word, asook die isolering van pypaanlegte, vir verkoelingsdiensstelsels hoef nie onbrandbaar te wees nie, maar hulle moet tot die minimum praktiese hoeveelheid beperk word en hulle blootgestelde oppervalktes moet tot bevrediging van die Administrasie weerstandseienskappe hê teen die verspreiding van vlamme.

tion of the Administration, such requirements need not apply to control stations situated on, and opening on to, an open deck, or where local closing arrangements would be equally effective.

(i) Ducts provided for ventilation of machinery spaces of Category A shall not in general pass through accommodation, service spaces or control stations, except that the Administration may permit relaxation from this requirement, provided that—

(i) the ducts are constructed of steel, and are insulated to "A-60" standard; or

(ii) the ducts are constructed of steel and are fitted with an automatic fire damper close to the boundary penetrated and are insulated to "A-60" standard from the machinery space to a point at least 5 metres (16 feet) beyond the fire damper.

(j) Ducts provided for ventilation of accommodation, service spaces, or control stations shall not in general pass through machinery spaces of Category A, except that the Administration may permit relaxation from this requirement provided that the ducts are constructed of steel and automatic fire dampers are fitted close to the boundaries penetrated.

REGULATION 26

Windows and sidescuttles

(a) All windows and sidescuttles in bulkheads within accommodation and service spaces and control stations other than those to which the provisions of paragraph (h) of Regulation 23 and paragraph (c) of Regulation 24 of this Chapter apply, shall be constructed so as to preserve the integrity requirements of the type of bulkheads in which they are fitted.

(b) Notwithstanding the requirements of the tables in Regulation 20 of this Chapter—

(i) all windows and sidescuttles in bulkheads separating accommodation and service spaces and control stations from weather shall be constructed with frames of steel or other suitable material. The glass shall be retained by a metal glazing bead or angle;

(ii) special attention shall be given to the fire integrity of windows facing open or enclosed lifeboat and liferaft embarkation areas and to windows situated below such areas in such a position that their failure during a fire would impede the launching of, or embarkation into, lifeboats or liferafts.

REGULATION 27

Restriction of combustible materials

(a) Except in cargo spaces, mail rooms, baggage rooms, or refrigerated compartments of service spaces, all linings, grounds, ceilings and insulations shall be of non-combustible materials. Partial bulkheads or decks used to subdivide a space for utility or artistic treatment shall also be of non-combustible material.

(b) 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 qualities of resistance to the propagation of flame to the satisfaction of the Administration.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(c) Beskotte, bekledings en plafonne in alle akkommodasie- en diensruimtes kan 'n brandbare fineerlaag hê, solank sodanige fineer nie dikker as 2 millimeter (1/12 duim) binne enige sodanige ruimtes is nie, behalwe in gange, trapomsluitings en beheerposte, waar dit nie dikker as 1,5 millimeter (1/17 duim) moet wees nie.

(d) Die totale volume brandbare belegsels, lyswerk, versiersels en fineer binne enige akkommodasie- en diensruimte moet nie 'n volume oorskry gelyk aan 2,5 millimeter (1/10 duim) fineer oor die gekombineerde oppervakte van mure en plafonne nie. In die geval van skepe met 'n outomatiese sproeierstelsel wat aan die bepalings van Regulasie 12 van hierdie Hoofstuk voldoen, kan die bogenoemde volume sommige brandbare materiaal insluit wat gebruik word vir die oprigting van Klas "C"-verdelings.

(e) Alle blootgestelde oppervlaktes in gange of trapomsluitings en oppervlaktes in weggesteekte of ontoeganklike ruimtes binne akkommodasieruimtes, diensruimtes, en beheerposte moet lae vlamverspreidingseienskappe hê*.

(f) Meubels in die gange en trapomsluitings moet tot 'n minimum beperk word.

(g) Verwe, vernisse en ander afwerkings aan blootgestelde binneoppervlaktes moet nie van 'n aard wees wat na die mening van die Administrasie 'n oormatige brandgevaar skep nie en moet nie in staat wees om buitensporige hoeveelhede rook of ander giftige bestanddele af te gee nie.

(h) Primêre dekbedekkings, indien aangebring, binne akkommodasieruimtes, diensruimtes en beheerposte, moet van goedgekeurde materiaal wees wat nie maklik sal ontbrand of sal lei tot gif- of ontploffingsgevaar teen verhoogde temperature nie†.

(i) Afvalpapierhouers moet soliede kante en bodems hê en van onbrandbare materiaal gemaak wees.

REGULASIE 28

Diverse items

Vereistes wat geld vir alle dele van die skip

(a) Pype wat Klas "A"- en "B"-verdelings deurdring moet van 'n materiaal wees wat deur die Administrasie goedgekeur is met inagneming van die hittegraad wat sodanige verdelings moet kan weerstaan. Pype wat olie of brandbare vloeistowwe vervoer moet van 'n materiaal wees wat deur die Administrasie goedgekeur is met inagneming van die brandrisiko. Materiale wat maklik deur hitte onbruikbaar gemaak word, moet nie gebruik word vir oorboordse spuigate, sanitêre uitlaatpunte en ander uitlate naby die waterlyn wat in die geval van 'n brand kan lei tot 'n oorstromingsgevaar nie.

Vereistes wat geld vir akkommodasie- en diensruimtes, beheerposte, gange en trappe

(b) (i) Ingeslote lugruimtes agter plafonne, panele of bekleedsels moet paslik verdeel word deur styfpassende lugstroomstuiters nie meer as 14 meter (46 voet) van mekaar nie.

* Hier word verwys na die *Guidelines on the Evaluation of Fire Hazard Properties of Materials*, soos deur die Organisasie aangeneem by Resolusie A.166 (ES. IV).

† Hier word verwys na die *Improved Provisional Guidelines on Test Procedures for Primary Deck Coverings* soos deur die Organisasie aangeneem by Resolusie A. 214 (VII).

(c) Bulkheads, linings and ceilings in all accommodation and service spaces may have combustible veneer, provided that such veneer shall not exceed 2 millimetres ($^1/_{12}$ inch) within any such spaces except corridors, stairway enclosures and control stations where it shall not exceed 1,5 millimetres ($^1/_{17}$ inch).

(d) The total volume of combustible facings, mouldings, decorations and veneers in any accommodation and service space shall not exceed a volume equivalent to 2,5 millimetres ($^1/_{10}$ inch) veneer on the combined area of the walls and ceilings. In the case of ships fitted with an automatic sprinkler system complying with the provisions of Regulation 12 of this Chapter, the above volume may include some combustible material used for erection of "C" Class divisions.

(e) All exposed surfaces in corridors or stairway enclosures and surfaces in concealed or inaccessible spaces in accommodation and service spaces and control stations shall have low flame-spread characteristics.*

(f) Furniture in the passages and stairway enclosures shall be kept to a minimum.

(g) Paints, varnishes and other finishes used on exposed interior surfaces shall not be of a nature to offer an undue fire hazard in the judgment of the Administration and shall not be capable of producing excessive quantities of smoke or other toxic properties.

(h) 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.†

(i) Waste-paper receptacles shall be constructed of non-combustible materials and with solid sides and bottoms.

REGULATION 28

Miscellaneous items

Requirements applicable to all portions of the ship

(a) Pipes penetrating "A" or "B" Class divisions shall be of a material approved by the Administration having regard to the temperature such divisions are required to withstand. Pipes conveying oil or combustible liquids shall be of a material approved by the Administration having regard to the fire risk. Materials readily rendered ineffective by heat shall not be used for overboard scuppers, sanitary discharges, and other outlets which are close to the water-line and where the failure of the material in the event of fire would give rise to danger of flooding.

Requirements applicable to accommodation and service spaces, control stations, corridors and stairways

(b) (i) Air spaces enclosed behind ceilings, panelling or linings shall be suitably divided by close-fitting draught stops not more than 14 metres (46 feet) apart.

* Reference is made to Guidelines on the Evaluation of Fire Hazard Properties of Materials, adopted by the Organization by Resolution A. 166 (ES. IV).

† Reference is made to Improved Provisional Guidelines on Test Procedures for Primary Deck Coverings, adopted by the Organization by Resolution A.214 (VII).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(ii) In die vertikale rigting moet sulke ruimtes, insluitende dié agterbekleedsels van trappe, kokers, ensovoorts, by elke dek afgesluit wees.

(c) Die konstruksie van plafonne en beskotte moet sodanig wees dat dit vir brandpatrollies moontlik sal wees om sonder die belemmering van die doeltreffendheid van die brandbeskerming, enige rook op te spoor wat vanuit weggesteekte of ontoeganklike ruimtes ontstaan, behalwe waar daar na die mening van die Administrasie geen risiko is dat 'n brand in sodanige plekke kan ontstaan nie.

REGULASIE 29

Outomatiese sproeier- en brandalarm- en brandverklikstelsels of outomatiese brandalarm- en brandverklikstelsels

In enige skip ten opsigte waarvan hierdie deel geld, moet daar dwarsdeur elke afsonderlike sone, of hy vertikaal of horisontaal is, in alle akkommodasie- en diensruimtes en, waar dit deur die Administrasie nodig geag word, in beheerposte, behalwe ruimtes sonder enige noemenswaardige brandgevaar (soos leë ruimtes, sanitêre ruimtes, ens.), een van die volgende geïnstalleer wees:

(i) Òf 'n goedgekeurde tipe outomatiese sproeier- en brandalarm- en brandverklikstelsel wat aan die bepalings van Regulasie 12 van hierdie Hoofstuk voldoen en wat sodanig geïnstalleer en gerangskik is dat dit sodanige ruimtes beskerm;

(ii) òf 'n goedgekeurde tipe outomatiese brandalarm- en verklikstelsel wat aan die bepalings van Regulasie 13 van hierdie Hoofstuk voldoen en wat sodanig geïnstalleer en gerangskik is dat dit 'n brand in sodanige riumtes kan opspoor.

REGULASIE 30

Beskerming van spesiale kategorie-ruimte

Bepalings van toepassing op spesiale kategorie-ruimtes òf bo òf onder die beskotdek.

(a) *Algemeen.*

(i) Die grondbeginsel wat die bepalings van hierdie regulasie onderlê, is dat aangesien normale vertikale hoofsonering in spesiale kategorie-ruimtes nie doenlik mag wees nie, ekwivalente beskerming in sulke ruimtes bewerkstellig moet word op die basis van 'n horisontale sone -konsep en die voorsiening van 'n doeltreffende vaste brandblusstelsel. Onder hierdie konsep kan 'n horisontale sone vir die doel van hierdie regulasie spesiale kategorie -ruimtes op meer as een dek insluit, solank die totale hoogte van die sones nie 10 meter (33 voet) oorskry nie.

(ii) Alle vereistes soos uiteengesit in Regulasies 23 en 25 van hierdie Hoofstuk vir die handhawing van die integriteit van vertikale sones geld eweneens vir dekke en beskotte wat die verdelings vorm wat horisontale sones van mekaar en van die res van die skip skei.

(b) *Strukturele beskerming.*

(i) Grensbeskotte van spesiale kategorie-ruimtes moet geïsoleer wees soos vereis vir Kategorie (11)-ruimtes in Tabel 1 van Regulasie 20 van hierdie Hoofstuk en die horisontale verdelings soos vereis soos vir Kategorie (11)-ruimtes in Tabel 3 van hierdie Regulasie.

(ii) aanwysings moet op die navigasiebrug voorsien word wat aandui wanneer enige branddeur wat na of van die spesiale kategorie- ruimtes lei, toe is.

(ii) In the vertical direction, such spaces, including those behind linings of stairways, trunks, etc., shall be closed at each deck.

(c) The construction of ceiling and bulkheading shall be such that it will be possible, without impairing the efficiency of the fire protection, for the fire patrols to detect any smoke originating in concealed and inaccessible places, except where in the opinion of the Administration there is no risk of fire originating in such places.

REGULATION 29

Automatic sprinkler and fire alarm and fire detection systems or automatic fire alarm and fire detection systems

In any ship to which this Part applies there shall be installed throughout each separate zone, whether vertical or horizontal, in all accommodation and service spaces and, where it is considered necessary by the Administration, in control stations, except spaces which afford no substantial fire risk (such as void spaces, sanitary spaces, etc.) either—

(i) an automatic sprinkler and fire alarm and fire detection system of an approved type, complying with the provisions of Regulation 12 of this Chapter and installed and so arranged as to protect such spaces; or

(ii) an automatic fire alarm and fire detection system of an approved type, complying with the provisions of Regulation 13 of this Chapter, and installed and so arranged as to detect the presence of fire in such spaces.

REGULATION 30

Protection of special category spaces

Provisions applicable to special category spaces whether above or below the bulkhead deck

(a) *General.*

(i) The basic principle underlying the provisions in this Regulation is that as normal main vertical zoning may not be practicable in special category spaces, equivalent protection must be obtained in such spaces on the basis of a horizontal zone concept and the provision of an efficient fixed fire-extinguishing system. Under this concept a horizontal zone for the purpose of this Regulation may include special category spaces on more than one deck provided that the overall height of the zone does not exceed 10 metres (33 feet).

(ii) All requirements laid down in Regulations 23 and 25 of this Chapter for maintaining the integrity of vertical zones shall be applied equally to decks and bulkheads forming the boundaries separating horizontal zones from each other and from the remainder of the ship.

(b) *Structural protection.*

(i) Boundary bulkheads of special category spaces shall be insulated as required for Category (11) spaces in Table 1 of Regulation 20 of this Chapter and the horizontal boundaries as required for Category (11) spaces in Table 3 of that Regulation.

(ii) Indicators shall be provided on the navigating bridge which shall indicate when any fire door leading to or from the special category spaces is closed.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(c) *Vaste brandblusstelsel.**

Elke spesiale kategorie -ruimte moet voorsien wees van 'n goedgekeurde handbeheerde vaste drukwatersproeistelsel wat alle dele van elke dek en voertuigplatform, as daar is, in sodanige ruimte moet beskerm; met dien verstande dat die Administrasie enige ander vaste brandblusstelsel kan toelaat wat in 'n volskaalse toets in toestande wat 'n vloeiende petrolbrand in 'n spesiale kategorie -ruimte naboots, bewys het dat dit nie minder doeltreffend is met die beheer van brande wat waarskynlik binne so 'n ruimte kan uitbreek nie.

(d) *Patrollies en opsporing.*

(i) 'n Doeltreffende patrolliestelsel moet in spesiale kategorie -ruimtes gehandhaaf word. In elke sodanige ruimte waarin die patrollie nie gehandhaaf word deur 'n deurlopende brandwag te alle tye gedurende die reis nie, moet daar in daardie ruimte 'n goedgekeurde tipe outomatiese brandverklikstelsel voorsien wees.

(ii) Handbeheerde brandalarms moet waar nodig dwarsdeur die spesiale kategorie -ruimtes voorsien word, en een moet digby elke uitgang van sulke ruimtes geplaas word.

(e) *Brandblusapparaat.*

Die volgende moet in elke spesiale kategorie -ruimte voorsien word:

(i) 'n Aantal brandkrane met brandslange en dubbeldoelsproeikoppe van 'n goedgekeurde tipe, wat so ingerig is dat minstens twee strale water elk uit 'n enkele brandslang wat nie aan dieselfde brandkraan gekoppel is nie, elke deel van sodanige ruimte kan bereik;

(ii) minstens drie stuifblussers;

(iii) een draagbare aanwendingseenheid wat voldoen aan die bepalings van Regulasie 7 (d) van hierdie Hoofstuk; met dien verstande dat minstens twee sulke eenhede op die skip beskikbaar is vir gebruik in sodanige ruimtes; en

(iv) sodanige getal draagbare brandblussers van 'n goedgekeurde tipe as wat na die goeddunke van die Administrasie toereikend is.

(f) *Ventilasiestelsel.*

(i) Daar moet 'n doeltreffende kragventilasiestelsel vir die spesiale kategorie -ruimtes voorsien word wat voldoende is om minstens 10 lugverwisselings per uur te gee. Die stelsel vir sodanige ruimtes moet heeltemal apart van ander ventilasiestelsels wees en moet te alle tye werk wanneer daar voertuie in sodanige ruimtes is. Die Administrasie kan 'n bykomende getal lugverwisselings vereis wanneer voertuie op- of afgelaai word.

(ii) Die ventilasie moet sodanig wees dat dit lugstratifikasie en die vorming van lugblase verhoed.

(iii) Middele moet voorsien word wat op die navigasiebrug enige verlies of vermindering van die vereiste ventilasiekapasiteit aantoon.

Bykomende bepalings wat net op spesiale kategorie -ruimtes bo die beskotdek van toepassing is

(g) *Spuigate.*

Met die oog op die ernstige verlies aan stabiliteit wat kan ontstaan wanneer groot hoeveelhede water op die dek of dekke versamel as gevolg van die gebruik van die vaste drukwatersproeierstelsel, moet spuigate aangebring word om te verseker dat hierdie water vinnig direk oorboord uitgelaat word.

* Hier word verwys na die *Recommendation on Fixed Fire Extinguishing Systems for Special Category Spaces*, soos deur die Organisasie aangeneem by Resolusie A.123 (V).

(c) *Fixed fire-extinguishing system**.

Each special category space shall be fitted with an approved fixed pressure water-spraying system for manual operation which shall protect all parts of any deck and vehicle platform, if any, in such space, provided that the Administration may permit the use of any other fixed fire-extinguishing system that has been shown by full-scale test in conditions simulating a flowing petrol fire in a special category space to be not less effective in controlling fires likely to occur in such a space.

(d) *Patrols and detection.*

(i) An efficient patrol system shall be maintained in special category spaces. In any such space in which the patrol is not maintained by a continuous fire watch at all times during the voyage there shall be provided in that space an automatic fire detection system of an approved type.

(ii) Manual fire alarms shall be provided as necessary throughout the special category spaces and one shall be placed close to each exit from such spaces.

(e) *Fire-extinguishing equipment.*

There shall be provided in each special category space—

(i) a number of hydrants with hoses and dual-purpose nozzles of an approved type so arranged that at least two jets of water each from a single length of hose not emanating from the same hydrant may reach any part of such space;

(ii) at least three water fog applicators;

(iii) one portable applicator unit complying with the provisions of Regulation 7 (d) of this Chapter, provided that at least two such units are available in the ship for use in such spaces; and

(iv) such number of portable fire extinguishers of an approved type as the Administration may deem sufficient.

(f) *Ventilation system.*

(i) There shall be provided an effective power ventilation system for the special category spaces sufficient to give at least 10 air changes per hour. The system for such spaces shall be entirely separated from other ventilation systems and shall be operating at all times when vehicles are in such spaces. The Administration may require an increased number of air changes when vehicles are being loaded and unloaded.

(ii) The ventilation shall be such as to prevent air stratification and the formation of air pockets.

(iii) Means shall be provided to indicate on the navigating bridge any loss or reduction of the required ventilating capacity.

Additional provisions applicable only to special category spaces above the bulkhead deck

(g) *Scuppers.*

In view of the serious loss of stability which could arise due to large quantities of water accumulating on the deck or decks consequent on the operation of the fixed pressure water-spraying system, scuppers shall be fitted so as to ensure that such water is rapidly discharged directly overboard.

* Reference is made to Recommendation on Fixed Fire Extinguishing Systems for Special Category Spaces, adopted by the Organization by Resolution A.123 (V).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(h) *Voorsorgmaatreëls teen die ontbranding van ontvlambare dampe.*

(i) Toerusting wat 'n bron van ontbranding van ontvlambare dampe kan vorm, en in besonder elektriese toerusting en bedrading, moet minstens 450 millimeter (18 duim) bo die dek geïnstalleer word; met dien verstande dat indien die Administrasie meen dat die installering van sodanige elektriese toerusting en bedrading onder hierdie vlak nodig is vir die veilige werking van die skip, sodanige elektriese toerusting en bedrading van 'n soort moet wees wat goedgekeur is vir gebruik in 'n plofbare petrol-en-lug-mengsel. Elektriese toerusting wat hoër as 450 millimeter (18 duim) bo die dek geïnstalleer word, moet van 'n soort wees wat so omsluit en beskerm is dat dit die afgee van vonke voorkom. Die verwysing na 'n vlak van 450 millimeter (18 duim) bo die dek, moet opgevat word om te beteken elke dek waarop voertuie vervoer word en waarop plofbare dampe waarskynlik versamel.

(ii) Elektriese toerusting en bedrading moet, indien dit geïnstalleer word in 'n uitlaatventilasieleiding, van 'n soort wees wat goedgekeur is vir gebruik in plofbare petrol-en-lug-mengsels, en die uitlaatpunt van elke uitlaatleiding moet in 'n veilige posisie geplaas word met inagneming van ander moontlike bronne van ontbranding.

Bykomende bepalings wat net op spesiale kategorie -ruimtes onder die beskotdek van toepassing is

(i) *Lenspomping en dreinering.*

Met die oog op die ernstige verlies aan stabiliteit wat kan ontstaan wanneer groot hoeveelhede water op die dek of tenktop versamel as gevolg van die gebruik van die vaste drukwatersproeierstelsel, kan die Administrasie ook voorsiening van bykomende pomp- en dreineringsfasiliteite vereis afgesien van die vereistes ingevolge Regulasie 18 van Hoofstuk II-1 van die huidige Konvensie.

(j) *Voorsorg teen die ontbranding van ontvlambare dampe.*

(i) Elektriese toerusting en bedrading, as daar is, moet van 'n tipe wees wat geskik is vir gebruik in plofbare petrol-en-lug-mengsels. Ander toerusting wat 'n ontstekingsbron vir ontvlambare dampe kan skep, moet nie toegelaat word nie.

(ii) Elektriese toerusting en bedrading moet, indien dit geïnstalleer word in 'n uitlaatventilasieleiding, van 'n soort wees wat goedgekeur is vir gebruik in plofbare petrol-en-lug-mengsels, en die uitlaatpunt van elke uitlaatleiding moet in 'n veilige posisie geplaas word met inagneming van ander moontlike bronne van ontsteking.

REGULASIE 31

Beskerming van vragruimtes, met die uitsondering van spesiale kategorie -ruimtes, wat bedoel is vir die vervoer van motorvoertuie met brandstof vir eie aandrywing in hulle tenks

In enige vragruimtes (behalwe spesiale kategorie -ruimtes) met motorvoertuie met brandstof vir eie aandrywing in hulle tenks, moet daar aan die volgende bepalings voldoen word:

(a) *Brandopsporing.*

'n Goedgekeurde brandverklik- en brandalarmstelsel moet voorsien word.

(h) *Precautions against ignition of inflammable vapours.*

(i) Equipment which may constitute a source of ignition of inflammable vapours and in particular electrical equipment and wiring, shall be installed at least 450 millimetres (18 inches) above the deck, provided that if the Administration is satisfied that the installation of such electrical equipment and wiring below this level is necessary for the safe operation of the ship, such electrical equipment and wiring shall be of a type approved for use in an explosive petrol and air mixture. Electrical equipment installed at more than 450 millimetres (18 inches) above the deck shall be of a type so enclosed and protected as to prevent the escape of sparks. The reference to a level of 450 millimetres (18 inches) above the deck shall be construed to mean each deck on which vehicles are carried and on which explosive vapours might be expected to accumulate.

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

Additional provisions applicable only to special category spaces below the bulkhead deck.

(i) *Bilge pumping and drainage.*

In view of the serious loss of stability which could arise due to large quantities of water accumulating on the deck or tank top consequent on the operation of the fixed pressure water-spraying system, the Administration may require pumping and drainage facilities to be provided additional to the requirements of Regulation 18 of Chapter II-1 of the present Convention.

(j) *Precautions against ignition of inflammable vapours.*

(i) Electrical equipment and wiring, if fitted, shall be of a type suitable for use in explosive petrol and air mixtures. Other equipment which may constitute a source of ignition of inflammable vapours shall not be permitted.

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

REGULATION 31

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

In any cargo space (other than special category spaces) containing motor vehicles with fuel in their tanks for their own propulsion, the following provisions shall be complied with:

(a) *Fire detection.*

There shall be provided an approved fire detection and fire alarm system.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(b) *Brandblusreëlings.*

(i) Daar moet 'n vaste gas-brandblusstelsel aangebring word wat voldoen aan die bepalings van Regulasie 8 van hierdie Hoofstuk, behalwe dat waar 'n kooldioksiedstelsel geïnstalleer is die hoeveelheid beskikbare gas ten minste genoeg moet wees om 'n volume vrye gas gelyk aan 45 persent van die bruto volume van die grootste sodanige afseëlbare vragruimte te verskaf, en die maatreëls moet sodanig wees dat dit verseker dat die gas vinnig en doeltreffend binne die ruimte vrygestel word. Enige ander vaste gas-brandblusstelsel of vaste sterkskuimende brandblusstelsel kan geïnstalleer word, solank dit ekwivalente beskerming verleen.

(ii) Daar moet vir gebruik in enige sodanige ruimte sodanige getal draagbare brandblussers van 'n goedgekeurde tipe voorsien word as wat die Administrasie voldoende ag.

(c) *Ventilasiestelsel.*

(i) In elke sodanige vragruimte moet daar 'n doeltreffende kragventilasiestelsel voorsien word wat voldoende is om minstens 10 lugverwisselings per uur te gee. Die stelsel vir sodanige vragruimtes moet heeltemal apart van ander ventilasiestelsels wees en moet te alle tye werk wanneer daar voertuie in sodanige ruimtes is.

(ii) Die ventilasie moet sodanig wees dat dit lugstratifikasie en die vorming van lugblase verhoed.

(iii) Middele moet voorsien word wat enige verlies of vermindering van die vereiste ventilasiekapasiteit op die navigasiebrug aandui.

(d) *Voorsorgmaatreëls teen die ontbranding van ontvlambare dampe.*

(i) Elektriese toerusting en bedrading, as daar is, moet van 'n tipe wees wat geskik is vir gebruik in plofbare petrol-en-lug-mengsels. Ander toerusting wat 'n ontstekingsbron vir ontvlambare dampe kan skep, moet nie toegelaat word nie.

(ii) Elektriese toerusting en bedrading moet, indien dit geïnstalleer word in 'n uitlaatventilasieleiding, van 'n soort wees wat goedgekeur is vir gebruik in plofbare petrol-en-lug-mengsels, en die uitlaatpunt van elke uitlaatleiding moet in 'n veilige posisie geplaas word met inagneming van ander moontlike bronne van ontsteking.

REGULASIE 32

Instandhouding van brandpatrollies, ens. en voorsiening vir brandblusapparaat

(a) *Brandpatrollies en opsporing, alarms en luidsprekerstelsels.*

(i) 'n Doeltreffende patrolliestelsel moet in stand gehou word sodat die uitbreek van 'n brand onverwyld opgespoor kan word. Elke lid van die brandpatrollie moet opgelei wees om bekend te wees met die inrigtings van die skip sowel as die opsporing en werking van enige toerusting wat hy gevra kan word om te gebruik.

(ii) Handbeheerde alarms moet dwarsdeur die akkommodasie- en diensruimtes aangebring word om die brandpatrollie in staat te stel om onmiddellik 'n alarm deur te stuur na die navigasiebrug of die hoofbrandbeheerstasie toe.

(iii) 'n Goedgekeurde brandalarm- of brandverklikstelsel moet voorsien word wat outomaties by een of meer geskikte plekke of poste die teenwoordigheid of tekens en lokaliteit van 'n brand sal aandui in enige

(b) *Fire-extinguishing arrangements.*

(i) There shall be fitted a fixed gas fire-extinguishing system which shall comply with the provisions of Regulation 8 of this Chapter, except that if a carbon dioxide system is fitted, the quantity of gas available shall be at least sufficient to give a minimum volume of free gas equal to 45 per cent of the gross volume of the largest of such cargo spaces which is capable of being sealed, and the arrangements shall be such as to ensure that the gas is introduced rapidly and effectively into the space. Any other fixed gas fire-extinguishing system or fixed high expansion froth fire-extinguishing system may be fitted provided it gives equivalent protection.

(ii) There shall be provided for use in any such space such number of portable fire extinguishers of an approved type as the Administration may deem sufficient.

(c) *Ventilation system.*

(i) In any such cargo space there shall be provided an effective power ventilation system sufficient to give at least 10 air changes per hour. The system for such cargo spaces shall be entirely separated from other ventilation systems and shall be operating at all times when vehicles are in such spaces.

(ii) The ventilation shall be such as to prevent air stratification and the formation of air pockets.

(iii) Means shall be provided to indicate on the navigating bridge any loss or reduction of the required ventilating capacity.

(d) *Precautions against ignition of inflammable vapours.*

(i) Electrical equipment and wiring, if fitted, shall be of a type suitable for use in explosive petrol and air mixtures. Other equipment which may constitute a source of ignition of inflammable vapours shall not be permitted.

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

REGULATION 32

Maintenance of fire patrols, etc., and provision for fire-extinguishing equipment

(a) *Fire patrols and detection, alarms and public address systems.*

(i) An efficient patrol system shall be maintained so that an outbreak of fire may be promptly detected. Each member of the fire patrol shall be trained to be familiar with the arrangements of the ship as well as the location and operation of any equipment he may be called upon to use.

(ii) Manuel alarms shall be fitted throughout the accommodation and service spaces to enable the fire patrol to give an alarm immediately to the navigating bridge or main fire control station.

(iii) An approved fire alarm or fire detecting system shall be provided which will automatically indicate at one or more suitable points or stations the presence or indication of fire and its location in any cargo space which, in the opinion of the Administration, is not

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

vragruimte wat na die mening van die Administrasie nie vir die brandpatrollie toeganklik is nie, behalwe waar die Administrasie oortuig kan word dat die skip sulke kort reise onderneem dat dit onredelik sou wees om hierdie vereiste toe te pas.

(iv) Die skip moet te alle tye op see of in die hawe (behalwe wanneer dit aan diens onttrek is) so beman of toegerus wees dat dit verseker dat enige aanvanklike brandalarm onmiddellik deur 'n verantwoordelike bemanningslid ontvang word.

(v) 'n Spesiale alarm wat vanaf die navigasiebrug of brandbeheerstasie bedien word, moet aangebring word om die bemanning te ontbied. Hierdie alarm kan deel vorm van die skip se algemene alarmstelsel, maar dit moet onafhanklik gebruik kan word van die alarm na die passasiersruimtes toe.

(vi) 'n Luidsprekerstelsel of ander doeltreffende kommunikasiemiddel moet dwarsdeur die akkommodasie- en diensruimtes en beheerposte beskikbaar wees.

(b) *Brandpompe en brandhoofleidingstelsel.*

Die skip moet voorsien wees van brandpompe, 'n brandhoofleidingstelsel, brandkrane en -slange ooreenkomstig die bepalings van Regulasie 5 van hierdie Hoofstuk, en moet aan die volgende vereistes voldoen:

(i) Op 'n skip van 4 000 ton bruto tonnemaat en groter moet daar minstens drie onafhanklik aangedrewe brandpompe voorsien wees, en op 'n skip van kleiner as 4 000 ton bruto tonnemaat minstens twee sodanige brandpompe.

(ii) Op 'n skip van meer as 1 000 ton bruto tonnemaat en groter moet die plasing van seekonneksies, brandpompe en kragbronne vir hulle aandrywing sodanig wees dat dit verseker dat 'n brand binne 'n enkele kompartement nie al die brandpompe buite werking stel nie.

(iii) Op 'n skip van 1 000 ton bruto tonnemaat en groter moet die inrigting van brandpompe, hoofbrandleidings en brandkrane sodanig wees dat minstens een doeltreffende straal water soos gestipuleer in paragraaf (c) van Regulasie 5 van hierdie Hoofstuk, onmiddellik beskikbaar is van elke enkele brandkraan in die binneruimte. Reëlings moet ook getref word om voortgesette waterlewering te verseker deur die outomatiese aanskakeling van 'n vereiste brandpomp.

(iv) Op 'n skip van kleiner as 1 000 ton bruto tonnemaat moet die reëlings die Administrasie se goedkeuring wegdra.

(c) *Brandkrane, -slange en -spuitstukke.*

(i) Die skip moet voorsien wees van brandslange waarvan die getal en deursnee die Administrasie se goedkeuring wegdra. Daar moet minstens een brandslang wees vir elke brandkraan wat vereis word ingevolge paragraaf (d) van Regulasie 5 van hierdie Hoofstuk, en hierdie slange moet slegs gebruik word om brande te blus of om die brandblusapparaat tydens brandweeroefeninge en inspeksies te toets.

(ii) In akkommodasie-, diens- en masjinerieruimtes moet die getal en posisie van die brandkrane sodanig wees dat hulle aan die vereistes van paragraaf (d) van Regulasie 5 van hierdie Hoofstuk kan voldoen wanneer alle waterdigte deure en deure in vertikale hoofsonebeskotte toe is.

(iii) Die inrigting moet sodanig wees dat minstens twee strale water elke deel van enige leë vragruimte kan bereik.

(iv) Alle vereiste brandkrane in masjinerieruimtes moet toegerus wees met slange wat benewens die spuitstukke wat ingevolge paragraaf (g) van Regulasie 5

accessible to the patrol system, except where it is shown to the satisfaction of the Administration that the ship is engaged on voyages of such short duration that it would be unreasonable to apply this requirement.

(iv) The ship shall at all times when at sea, or in port (except when out of service), be so manned or equipped as to ensure that any initial fire alarm is immediately received by a responsible member of the crew.

(v) A special alarm, operated from the navigating bridge or fire control station, shall be fitted to summon the crew. This alarm may be part of the ship's general alarm system but it shall be capable of being sounded independently of the alarm to the passenger spaces.

(vi) A public address system or other effective means of communication shall be available throughout the accommodation and service spaces and control stations.

(b) *Fire pumps and fire main system.*

The ship shall be provided with fire pumps, fire main system, hydrants and hoses complying with the provisions of Regulation 5 of this Chapter and shall comply with the following requirements:

(i) In a ship of 4 000 tons gross tonnage and upwards, there shall be provided at least three independently-driven fire pumps and, in a ship of less than 4 000 tons gross tonnage, at least two such fire pumps.

(ii) In a ship of 1 000 tons gross tonnage and upwards, the arrangement of sea connections, fire pumps and sources of power for operating them shall be such as to ensure that a fire in any one compartment will not put all the fire pumps out of action.

(iii) In a ship of 1 000 tons gross tonnage and upwards, the arrangement of fire pumps, fire mains and hydrants shall be such that at least one effective jet of water as stipulated in paragraph (c) of Regulation 5 of this Chapter is immediately available from any one hydrant in an interior location. Arrangements shall also be made to ensure the continuation of the output of water by the automatic starting of a required fire pump.

(iv) In a ship of less than 1 000 tons gross tonnage the arrangements shall be to the satisfaction of the Administration.

(c) *Fire hydrants, hoses and nozzles.*

(i) The ship shall be provided with fire hoses the number and diameter of which shall be to the satisfaction of the Administration. There shall be at least one fire hose for each of the hydrants required by paragraph (d) of Regulation 5 of this Chapter and these hoses shall be used only for the purposes of extinguishing fires or testing the fire-extinguishing apparatus at fire drills and surveys.

(ii) In accommodation and service spaces and in machinery spaces, the number and position of hydrants shall be such that the requirements of paragraph (d) of Regulation 5 of this Chapter may be complied with when all watertight doors and all doors in main vertical zone bulkheads are closed.

(iii) The arrangements shall be such that at least two jets of water can reach any part of any cargo space when empty.

(iv) All required hydrants in machinery spaces shall be fitted with hoses having in addition to the nozzles required in paragraph (g) of Regulation 5 of this

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

van hierdie Hoofstuk vereis word, toegerus is met spuitstukke wat geskik is vir die spuit van water op olie of, as alternatief, met dubbeldoelspuitstukke. Hierbenewens moet elke masjinerieruimte van Kategorie A voorsien wees van minstens twee geskikte stuifblussers.*

(v) Waterspreispuitstukke en dubbeldoelspuitstukke moet voorsien word vir minstens 'n kwart van die aantal slange wat in ander dele van die skip buiten masjinerieruimtes vereis word.

(vi) Vir elke asemhalingsapparaat moet daar een stuifblusser voorsien word wat langs sodanige apparaat gebêre moet word.

(vii) Waar daar in enige masjinerieruimte van Kategorie A toegang op 'n lae vlak verleen word vanuit 'n aangrensende skagtonnel, moet daar twee brandkrane toegerus met slange met dubbeldoelspuitstukke buite maar naby die ingang, na daardie masjinerieruimte voorsien word. Waar sodanige toegang nie vanuit 'n tonnel nie maar vanuit 'n ander ruimte of ruimtes verleen word, moet daar in een van daardie ruimtes twee brandkrane toegerus met slange met dubbeldoelspuitstukke naby die ingang van die masjinerieruimte van Kategorie A voorsien word. Sodanige voorsiening hoef nie gemaak te word as die tonnel of aangrensende ruimtes nie deel van 'n ontsnaproete vorm nie.

(d) *Internasionale landaansluiting.*

(i) 'n Skip van 1 000 ton bruto tonnemaat en groter moet voorsien wees van minstens een internasionale landaansluiting wat voldoen aan die bepalings van paragraaf (h) van Regulasie 5 van hierdie Hoofstuk.

(ii) Fasiliteite moet beskikbaar wees wat dit moontlik maak om sodanige aansluiting aan enige kant van die skip te gebruik.

(e) *Draagbare brandblussers in akkommodasie- en diensruimtes en in beheerposte.*

Die skip se akkommodasie- en diensruimtes en beheerposte moet voorsien wees van goedgekeurde draagbare brandblussers wat die Administrasie as paslik en genoegsaam beskou.

(f) *Vaste brandblusinrigtings in vragruimtes.*

(i) Die vragruimtes van skepe van 1 000 ton bruto tonnemaat en groter moet beskerm word deur 'n vaste brandblusstelsel wat voldoen aan die bepalings van Regulasie 8 van hierdie Hoofstuk of deur 'n vaste sterkskuimende brandblusstelsel wat ekwivalente beskerming bied.

(ii) Waar dit tot bevrediging van die Administrasie getoon kan word dat 'n skip sulke kort reise onderneem dat dit onredelik sou wees om die vereistes van subparagraaf (i) van hierdie paragraaf toe te pas, en ook in skepe van kleiner as 1 000 ton bruto tonnemaat, moet die reëlings in vragruimtes die Administrasie se goedkeuring wegdra.

(g) *Brandblusapparaat in ketelkamers, ens.*

Ruimtes met olie-gestookte ketels of oliebrandstofeenhede moet van die volgende inrigtings voorsien wees:

(i) Daar moet enigeen van die volgende vaste brandblusstelsels wees:

(1) 'n Drukwatersproeistelsel wat voldoen aan die bepalings van Regulasie 11 van hierdie Hoofstuk.

* 'n Stuifblusser kan bestaan uit 'n L-vormige metaalpyp waarvan die lang been van omtrent 2 meter (6 voet) lank aan 'n brandslang gekoppel kan word en die kort been van ongeveer 250 millimeter (10 duim) lank toegerus is met 'n vaste stuifblusserspuitstuk of in staat is om toegerus te word met 'n waterspreispuitstuk.

Chapter nozzles suitable for spraying water on oil- or alternatively dual-purpose nozzles. Additionally, each machinery space of Category A shall be provided with at least two suitable water fog applicators*.

(v) Water spray nozzles or dual-purpose nozzles shall be provided for at least one quarter of the number of hoses required in parts of the ship other than machinery spaces.

(vi) For each pair of breathing apparatus there shall be provided one water fog applicator which shall be stored adjacent to such apparatus.

(vii) Where, in any machinery space of Category A, access is provided at a low level from an adjacent shaft tunnel, two hydrants fitted with hoses with dual-purpose nozzles shall be provided external to, but near the entrance to that machinery space. Where such access is not provided from a tunnel but is provided from other space or spaces there shall be provided in one of those spaces two hydrants fitted with hoses with dual-purpose nozzles near the entrance to the machinery space of Category A. Such provision need not be made when the tunnel or adjacent spaces are not part of an escape route.

(d) *International shore connection.*

(i) A ship of 1 000 tons gross tonnage and upwards shall be provided with at least one international shore connection, complying with the provisions of paragraph (h) of Regulation 5 of this Chapter.

(ii) Facilities shall be available enabling such a connection to be used on either side of the ship.

(e) *Portable fire extinguishers in accommodation and service spaces and control stations.*

The ship shall be provided in accommodation and service spaces and control stations with such approved portable fire extinguishers as the Administration may deem to be appropriate and sufficient.

(f) *Fixed fire-extinguishing arrangements in cargo spaces.*

(i) The cargo spaces of ships of 1 000 tons gross tonnage and upwards shall be protected by a fixed gas fire-extinguishing system complying with the provisions of Regulation 8 of this Chapter, or by a fixed high expansion froth fire-extinguishing system which gives equivalent protection.

(ii) Where it is shown to the satisfaction of the Administration that a ship is engaged on voyages of such short duration that it would be unreasonable to apply the requirements of subparagraph (i) of this paragraph and also in ships of less than 1 000 tons gross tonnage, the arrangements in cargo spaces shall be to the satisfaction of the Administration.

(g) *Fire-extinguishing appliances in boiler rooms, etc.*

Spaces containing oil-fired boilers or oil fuel units shall be provided with the following arrangements:

(i) There shall be any one of the following fixed fire-extinguishing systems:

(1) A pressure water-spraying system complying with the provisions of Regulation 11 of this Chapter.

* A water fog applicator might consist of a metal "L"-shaped pipe, the long limb being about 2 metres (6 feet) in length capable of being fitted to a fire hose and the short limb being about 250 millimetres (10 inches) in length fitted with a fixed water fog nozzle or capable of being fitted with a water spray nozzle.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(2) 'n Gasstelsel wat voldoen aan die bepalings van Regulasie 8 van hierdie Hoofstuk.

(3) 'n Skuimstelsel wat voldoen aan die bepalings van Regulasie 9 van hierdie Hoofstuk.

(4) 'n Sterkskuimende stelsel wat voldoen aan die bepalings van Regulasie 10 van hierdie Hoofstuk.

In elke geval waar die masjien- en die ketelkamer nie heeltemal afsonderlik is nie, of as olie vanuit die ketelkamer na die masjienkamer kan dreineer, moet die masjien- en die ketelkamer as een kompartement beskou word.

(ii) In elke ketelkamer moet daar minstens een draagbare stel lugskuimtoerusting wees wat voldoen aan die bepaling van paragraaf (d) van Regulasie 7 van hierdie Hoofstuk.

(iii) Daar moet minstens twee goedgekeurde draagbare blussers wat skuim of 'n ekwivalent spuit en elke stookruimte in elke ketelkamer en in elke ruimte wees waarin 'n deel van die oliebrandstofinstallasie geleë is. Daar moet in elke ketelkamer nie minder nie as een goedgekeurde skuimblusser met 'n kapasiteit van minstens 136 liter (30 gelling) of ekwivalent wees. Hierdie blussers moet voorsien wees van slange op tolle wat enige deel van die ketelkamer kan bereik.

(iv) In elke stookruimte moet daar 'n houer met sand, saagsels geweek in soda, of 'n ander goedgekeurde droë materiaal wees in sodanige hoeveelheid as wat die Administrasie mag vereis. Alternatiewelik kan dit vervang word deur 'n goedgekeurde draagbare blusser.

(h) *Brandblusapparaat in ruimtes met binnebrandmasjinerie.*

Ruimtes met binnebrandmasjinerie vir hoofaandrywing of ander doeleindes en waar sodanige masjinerie oor die geheel 'n totale kraglewering het van nie minder nie as 373 kW, moet van die volgende toerusting voorsien wees:

(i) Daar moet een van die brandblusstelsels, vereis ingevolge subparagraaf (g) (i) van hierdie Regulasie, wees.

(ii) Daar moet minstens een stel draagbare lugskuimtoerusting wees wat voldoen aan die bepalings van paragraaf (d) van Regulasie 7 van hierdie Hoofstuk.

(iii) Daar moet in elke sodanige ruimte goedgekeurde skuimbrandblussers van minstens 45 liter (10 gelling)-kapasiteit elk of 'n ekwivalent in genoegsame getalle wees om dit moontlik te maak om skuim of 'n ekwivalent te rig op alle dele van die brandstof- en smeeroliedrukstelsels, ratwerk of ander brandgevare. Boonop moet daar 'n genoegsame getal draagbare skuimblussers of 'n ekwivalent voorsien word wat so geplaas is dat daar 'n blusser binne 10 meter (33 voet)-loopafstand vanaf enige plek in die ruimte is; met dien verstande dat daar minstens twee sulke blussers binne elke sodanige ruimte is.

(i) *Brandblusinrigtings in ruimtes met stoomturbines of omslote stoommasjiene.*

In ruimtes met stoomturbines of omslote stoommasjiene vir hoofaandrywing of ander doeleindes en waar sodanige masjinerie oor die geheel 'n totale kraglewering van nie minder nie as 373 kW het—

(i) moet daar skuimbrandblussers met 'n kapasiteit van minstens 45 liter (10 gellings) elk of 'n ekwivalent in genoegsame getalle verskaf word om dit moontlik te maak om skuim of 'n ekwivalent te rig op enige deel van die druksmeerstelsel, op enige deel van die omhulsel wat drukgesmeerde onderdele van die turbines omsluit, masjiene of hulle ratwerk, en

(2) A gas system complying with the provisions of Regulation 8 of this Chapter.

(3) A froth system complying with the provisions of Regulation 9 of this Chapter.

(4) A high expansion froth system complying with the provisions of Regulation 10 of this Chapter.

In each case if the engine and boiler rooms are not entirely separate, or if fuel oil can drain from the boiler room into the engine room, the combined engine and boiler rooms shall be considered as one compartment.

(ii) There shall be in each boiler room at least one set of portable air-froth equipment complying with the provisions of paragraph (d) of Regulation 7 of this Chapter.

(iii) There shall be at least two approved portable extinguishers discharging froth or equivalent in each firing space in each boiler room and each space in which a part of the oil fuel installation is situated. There shall be not less than one approved froth-type extinguisher of at least 136 litres (30 gallons) capacity or equivalent in each boiler room. These extinguishers shall be provided with hoses on reels suitable for reaching any part of the boiler room.

(iv) In each firing space there shall be a receptacle containing sand, sawdust impregnated with soda or other approved dry material, in such quantity as may be required by the Administration. Alternatively an approved portable extinguisher may be substituted therefor.

(h) *Fire-extinguishing appliances in spaces containing internal combustion type machinery.*

Spaces containing internal combustion machinery used either for main propulsion, or for other purposes when such machinery has in the aggregate a total power output of not less than 373 kW, shall be provided with the following arrangements:

(i) There shall be one of the fire-extinguishing systems required by subparagraph (g) (i) of this Regulation.

(ii) There shall be at least one set of portable air-froth equipment complying with the provisions of paragraph (d) of Regulation 7 of this Chapter.

(iii) There shall be in each such space approved froth-type fire extinguishers each of at least 45 litres (10 gallons) capacity or equivalent sufficient in number to enable froth or its equivalent to be directed on to any part of the fuel and lubricating oil pressure systems, gearing and other fire hazards. In addition, there shall be provided a sufficient number of portable froth extinguishers or equivalent which shall be so located that an extinguisher is not more than 10 metres (33 feet) walking distance from any point in the space; provided that there shall be at least two such extinguishers in each such space.

(i) *Fire-extinguishing arrangements in spaces containing steam turbines or enclosed steam engines.*

In spaces containing steamturbines or enclosed steam engines used either for main propulsion or for other purposes when such machinery has in the aggregate a total power output of not less than 373 kW—

(i) there shall be provided froth fire extinguishers each of at least 45 litres (10 gallons) capacity or equivalent sufficient in number to enable froth or its equivalent to be directed on to any part of the pressure lubrication system, on to any part of the casings enclosing pressure lubricated parts of the turbines,

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

enige ander brandgevare; met dien verstande dat sodanige blussers nie vereis moet word waar beskerming ten minste gelykstaande met hierdie subparagraaf in sodanige ruimtes voorsien word deur 'n vaste brandblusstelsel wat ooreenkomstig subparagraaf (g) (i) van hierdie Regulasie aangebring is nie;

(ii) moet daar 'n genoegsame getal draagbare skuimblussers of hulle ekwivalent voorsien word wat so geplaas is dat daar 'n blusser binne 10 meter (33 voet)-loopafstand vanaf enige plek in die ruimte is; met dien verstande dat daar minstens twee sulke blussers binne elke sodanige ruimte moet wees, en dat sodanige blussers nie bykomend vereis moet word by enige wat ooreenkomstig subparagraaf (h) (iii) van hierdie Regulasie voorsien word nie.

(j) *Brandblusapparaat in ander masjinerieruimtes.*

Waar daar na die oordeel van die Administrasie 'n brandgevaar bestaan in enige masjinerieruimte waarvoor geen spesifieke bepalings oor brandblusapparaat in paragrawe (g), (h) en (i) van hierdie Regulasie voorgeskryf word nie, moet daar binne of langs daardie ruimte sodanige getal goedgekeurde draagbare brandblussers of ander brandblusmiddels wat die Administrasie as toereikend beskou, aangebring word.

(k) *Vaste brandblusapparaat wat nie in hierdie deel vereis word nie.*

Waar daar 'n vaste brandblusstelsel geïnstalleer word wat nie deur hierdie deel van hierdie Hoofstuk vereis word nie, moet sodanige stelsel die Administrasie se goedkeuring wegdra.

(l) *Spesiale vereistes vir masjinerieruimtes.*

(i) Vir enige masjinerieruimte van Kategorie A waartoe toegang op 'n lae vlak voorsien word vanuit 'n aangrensende skagtonnel, moet daar bykomend by enige waterdigte deur en aan die kant wég van daardie masjinerieruimte, 'n ligte staal -vuurskermdeur aangebring word wat van beide kante af gebruik kan word.

(ii) 'n Outomatiese brandverklik- en alarmstelsel moet geïnstalleer word wanneer die Administrasie sulke spesiale voorsorgmaatreëls as geregverdig beskou binne enige masjinerieruimte waarin die installering van outomatiese en afstandbeheerde stelsels en apparaat goedgekeur is ter vervanging van die voortdurende bemanning van die ruimte.

(m) *Brandweermanuitrustings en persoonlike toerusting.*

(i) Die minimum getal brandweermanuitrustings, wat voldoen aan die vereistes van Regulasie 14 van hierdie Hoofstuk en addisionele stelle persoonlike toerustings waarvan elke stel bestaan uit die items gestipuleer in subparagrawe (a) (i), (ii) en (iii) van daardie regulasie, aan boord, moet soos volg wees:

(1) Twee brandweermanuitrustings; en daarby

(2) twee brandweermanuitrustings en twee stelle persoonlike toerusting waarvan elke stel bestaan uit die items gestipuleer in Regulasie 14 (a) (i), (ii) en (iii) van hierdie Hoofstuk, vir elke 80 meter (262 voet) of gedeelte daarvan, van die som van alle passasiersruimtes, en diensruimtes op die dek wat sodanige ruimtes bevat, of as daar meer as een dek is, op die dek met die grootste som van sulke lengtes.

(ii) Vir elke brandweermanuitrusting wat 'n ingeboude asemhalingsapparaat ooreenkomstig paragraaf (b) van Regulasie 14 van hierdie Hoofstuk insluit, moet daar reserwevullings beskikbaar wees op 'n skaal wat die Admininstrasie goedkeur.

engines or associated gearing, and any other fire hazards. Provided that such extinguishers shall not be required if protection at least equivalent to this subparagraph is provided in such spaces by a fixed fire-extinguishing system fitted in compliance with subparagraph (g) (i) of this Regulation;

(ii) there shall be provided a sufficient number of portable froth extinguishers or equivalent which shall be so located that an extinguisher is not more than 10 metres (33 feet) walking distance from any point in the space; provided that there shall be at least two such extinguishers in each such space, and such extinguishers shall not be required in addition to any provided in compliance with subparagraph (h) (iii) of this Regulation.

(j) *Fire-extinguishing appliances in other machinery spaces.*

Where, in the opinion of the Administration, a fire hazard exists in any machinery space for which no specific provisions for fire-extinguishing appliances are prescribed in paragraphs (g), (h) and (i) of this Regulation there shall be provided in, or adjacent to, that space such number of approved portable fire extinguishers or other means of fire extinction as the Administration may deem sufficient.

(k) *Fixed fire-extinguishing appliances not required by this part.*

Where a fixed fire-extinguishing system not required by this Part of this Chapter is installed, such a system shall be to the satisfaction of the Administration.

(l) *Special requirements for machinery spaces.*

(i) For any machinery space of Category A to which access is provided at a low level from an adjacent shaft tunnel there shall be provided in addition to any watertight door and on the side remote from that machinery space a light steel fire-screen door which shall be operable from each side.

(ii) An automatic fire detection and alarm system shall be fitted when the Administration considers such special precautions warranted in any machinery space in which the installation of automatic and remote control systems and equipment have been approved in lieu of continuous manning of the space.

(m) *Fireman's outfits and personal equipment.*

(i) The minimum number of fireman's outfits complying with the requirements of Regulation 14 of this Chapter, and of additional sets of personal equipment, each such set comprising the items stipulated in subparagraphs (a) (i), (ii) and (iii) of that Regulation, to be carried shall be as follows:

(1) Two fireman's outfits; and in addition

(2) for every 80 metres (262 feet) or part thereof, of the aggregate of the lengths of all passenger spaces and service spaces on the deck which carries such spaces or, if there is more than one such deck, on the deck which has the largest aggregate of such lenghts, two fireman's outfits and two sets of personal equipment, each such set comprising the items stipulated in Regulation 14 (a) (i), (ii) and (iii) of this Chapter.

(ii) For each fireman's outfit which includes a self-contained breathing apparatus as provided in paragraph (b) of Regulation 14 of this Chapter, spare charges shall be carried on a scale approved by the Administration.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(iii) Brandweermanuitrustings en stelle persoonlike toerusting moet gereed vir gebruik en ver vanmekaar versprei gebêre word. Minstens twee brandweermanuitrustings en een stel persoonlike toerusting moet op enige enkele posisie beskikbaar wees.

REGULASIE 33

Reëlings betreffende oliebrandstof, smeerolie en ander ontvlambare olie

(a) *Oliebrandstofmaatreëls.*

Op 'n skip waarin oliebrandstof gebruik word, moet die reëlings vir die berging, verspreiding en gebruik daarvan sodanig wees dat dit die veiligheid van die skip en van die persone aan boord sal verseker en ten minste aan die volgende bepalings sal voldoen:

(i) Geen oliebrandstof met 'n ontbrandingspunt van laer as 60 °C (140 °F) (geslote houer-toets) soos bepaal deur 'n goedgekeurde vlampuntapparaat, moet as brandstof gebruik word nie, behalwe in noodgenerators, in welke geval die vlampunt nie laer as 43 °C (110 °F) moet wees nie; met dien verstande dat die Administrasie die algemene gebruik brandstofolie met 'n vlampunt van nie laer nie as 43 °C (110 °F) kan toelaat, onderworpe aan sodanige bykomende voorsorgmaatreëls as wat dit nodig mag ag en op voorwaarde dat die temperatuur van die ruimte waarin sodanige brandstof geberg of gebruik word, nie toegelaat moet word om tot binne 10 °C (18 °F) onder die vlampunt van die brandstof te styg nie.

(ii) Sover doenlik moet geen deel van die brandstofstelsel met verhitte olie onder 'n druk van meer as 1,8 kilogram per vierkante sentimeter (25 pond per vierkante duim) so verberg wees dat defekte en lekplekke nie geredelik raakgesien kan word nie. Waar sodanige moeilik sigbare gedeeltes van die oliebrandstofstelsel voorkom, moet die masjinerieruimte toereikend belig wees.

(iii) Die ventilasie van die masjinerieruimtes moet in alle normale omstandighede voldoende wees om die akkumulering van oliedampe te verhoed.

(iv) (1) Sover doenlik moet olietenks deel van die skip se struktuur vorm en moet hulle buite die masjinerieruimtes van Kategorie A geleë wees. Waar oliebrandstoftenks, behalwe dubbelboomtenks, noodwendig langs masjinerieruimtes van Kategorie A geplaas word, moet hulle verkieslik 'n gemeenskaplike grens met die dubbelboomtenks hê, en die oppervlakte van die gemeenskaplike grens met die masjinerieruimte moet tot die minimum beperk word. Oor die algemeen moet die gebruik van losstaande oliebrandstoftenks vermy word, maar wanneer hulle wel gebruik word, moet hulle nie binne masjinerieruimtes van Kategorie A geleë wees nie.

(2) Geen olietenk moet geleë wees waar die oorloop of 'n lek daaruit 'n gevaar kan skep deur olie op verhitte oppervlaktes te laat drup nie. Voorsorg moet getref word om te verhoed dat enige olie wat onder druk uit enige pomp, filter of verwarmer mag ontsnap, met verhitte oppervlaktes in aanraking kom.

(v) Elke oliebrandstofpyp wat, as dit beskadig is, olie sou laat ontsnap uit 'n bergingstenk, besinktenk of daaglikse diens -tenk wat bo die dubbelboom geleë is, moet van 'n kraan of klep voorsien wees wat vanaf 'n veilige plek buite die betrokke ruimte toegemaak kan word ingeval van 'n brand binne die ruimte waarin sodanige tenks geleë is. In die spesiale geval van diep tenks wat binne enige skag of pyptonnel of dergelike ruimte geleë is, moet daar kleppe aan die

(iii) Fireman's outfits and sets of personal equipment shall be stored in widely separated positions ready for use. At least two fireman's outfits and one set of personal equipment shall be available at any one position.

REGULATION 33

Arrangements for oil fuel, lubricating oil and other inflammable oils

(a) *Oil fuel arrangements.*

In a ship in which oil fuel is used, the arrangements for the storage, distribution and utilization of the oil fuel shall be such as to ensure the safety of the ship and persons on board and shall at least comply with the following provisions:

(i) No oil fuel which has a flashpoint of less than 60 °C (140 °F) (closed cup test) as determined by an approved flashpoint apparatus shall be used as fuel, except in emergency generators, in which case the flashpoint shall be not less than 43 °C (110 °F).

Provided that the Administration may permit the general use of fuel oil having a flashpoint of not less than 43 °C (110 °F) subject to such additional precautions as it may consider necessary and on condition that the temperature of the space in which such fuel is stored or used shall not be allowed to rise within 10 °C (18 °F) below the flashpoint of the fuel.

(ii) As far as practicable, no part of the oil fuel system containing heated oil under pressure exceeding 1,8 kilogrammes per square centimetre (25 pounds per square inch) gauge shall be so concealed that defects and leakage cannot readily be observed. In way of such parts of the oil fuel system the machinery space shall be adequately illuminated.

(iii) The ventilation of machinery spaces shall be sufficient under all normal conditions to prevent accumulation of oil vapour.

(iv) (1) As far as practicable, oil fuel tanks shall be part of the ship's structure and shall be located outside machinery spaces of Category A. When oil fuel tanks, except double bottom tanks, are necessarily located adjacent to machinery spaces of Category A, they shall preferably have a common boundary with the double bottom tanks, and the area of the tank boundary common with the machinery space shall be kept to a minimum. In general, the use of free-standing oil fuel tanks shall be avoided but when such tanks are employed they shall not be situated in machinery spaces of Category A.

(2) No oil tank shall be situated where spillage or leakage therefrom can constitute a hazard by falling on heated surfaces. Precautions shall be taken to prevent any oil that may escape under pressure from any pump, filter or heater from coming into contact with heated surfaces.

(v) Every oil fuel pipe which if damaged would allow oil to escape from a storage, settling or daily service tank situated above the double bottom shall be fitted with a cock or valve on the tank capable of being closed from a safe position outside the space concerned in the event of a fire arising in the space in which such tanks are situated. In the special case of deep tanks situated in any shaft or pipe tunnel or

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

tenks wees, maar beheer moet in die geval van 'n brand uitgeoefen kan word deur middel van 'n bykomende klep in die pyp of pype buite die tonnel of dergelike ruimte.

(vi) Veilige en doeltreffende middele moet voorsien word om die hoeveelheid oliebrandstof in enige olietenk mee vas te stel. Peilpype met geskikte sluitingsmiddels kan toegelaat word indien hulle bopunte in veilige posisies eindig. Ander middele om die hoeveelheid oliebrandstof in enige oliebrandstoftenk vas te stel, kan toegelaat word solank hulle nie deurdringing laer as die tenktop vereis nie en op voorwaarde dat hulle onklaarraking of die oorvulling van die tenks nie daardeur die loslating van brandstof sal toelaat nie.

(vii) Voorsiening moet gemaak word om oormatige druk te voorkom in enige olietenk of in enige deel van die oliebrandstofstelsel, insluitend die vulpype. Alle ontlaskleppe en lug- of oorlooppype moet op plekke afvoer wat na die mening van die Administrasie veilig is.

(viii) Oliebrandstofpype moet van staal of ander goedgekeurde materiaal wees; met dien verstande dat buigbare pype toelaatbaar is op plekke waar die Administrasie daarvan oortuig is dat hulle nodig is. Sulke buigbare pype en hulle eindkoppelstukke moet van goedgekeurde brandbestande materiaal van toereikende sterkte wees en tot bevrediging van die Administrasie gemaak wees.

(b) *Smeeroliemaatreëls.*

Die reëlings vir die berging, verspreiding en gebruik van olie wat in druksmeerstelsel gebruik word, moet sodanig wees dat dit die veiligheid van die skepe en van die persone aan boord sal verseker, en sodanige maatreëls in masjinerieruimtes van Kategorie A, en waar moontlik in ander masjinerieruimtes, moet ten minste voldoen aan die bepalings van subparagrawe (ii), (iv) (2), (v), (vi) en (vii) van paragraaf (a) van hierdie Regulasies.

(c) *Reëlings betreffende ander ontvlambare olies.*

Die maatreëls vir die berging, verspreiding en gebruik van ander ontvlambare olie wat onder druk in kragtransmissiestelsels, beheer- en aktiveringstelsels en verwarmingstelsels gebruik word, moet sodanig wees dat dit die veiligheid van die skip en die persone aan boord verseker. Op plekke waar ontstekingsmiddele aanwesig is, moet sodanige maatreëls ten minste voldoen aan die bepalings van subparagrawe (a) (iv) (2) en (a) (vi) en aan die bepalings van subparagraaf (a) (viii) ten opsigte van sterkte en konstruksie, van hierdie Regulasie.

REGULASIE 34

Spesiale inrigtings in masjinerieruimtes

(a) Die bepalings van hierdie Regulasie geld vir masjinerieruimtes van Kategorie A en waar die Administrasie dit wenslik ag, vir ander masjinerieruimtes.

(b) (i) Die aantal dakvensters, deure, ventileerders, openinge in skoorstene om uitlaatventilasie te verskaf en ander openinge na masjinerieruimtes, moet tot die minimum beperk word in ooreenstemming met die ventilasiebehoeftes en die behoorlike en veilige werking van die skip.

(ii) Waar daar klappe aan sodanige dakvensters aangebring word moet die klappe van staal wees. Geskikte maatreëls moet getref word vir die uitlaat van rook uit die beskermde ruimtes ingeval van brand.

(iii) Sodanige ander deure as kragbeheerde waterdigte deure moet so ingerig wees dat positiewe sluiting ingeval van brand verseker word deur kragbeheerde

similar space, valves on the tanks shall be fitted but control in event of fire may be effected by means of an additional valve on the pipe or pipes outside the tunnel or similar space.

(vi) Safe and efficient means of ascertaining the amount of oil fuel contained in any oil tank shall be provided. Sounding pipes with suitable means of closure may be permitted if their upper ends terminate in safe positions. Other means of ascertaining the amount of oil fuel contained in any oil fuel tank may be permitted if they do not require penetration below the top of the tank, and providing their failure or overfilling of the tanks will not permit release of fuel thereby.

(vii) Provision shall be made to prevent over-pressure in any oil tank or in any part of the oil fuel system, including the filling pipes. Any relief valves and air or overflow pipes shall discharge to a position which, in the opinion of the Administration, is safe.

(viii) Oil fuel pipes shall be of steel or other approved material, provided that restricted use of flexible pipes shall be permissible in positions where the Administration is satisfied that they are necessary. Such flexible pipes and end attachments shall be of approved fire-resisting materials of adequate strength and shall be constructed to the satisfaction of the Administration.

(b) *Lubricating oil arrangements.*

The arrangements for the storage, distribution and utilization of oil used in pressure lubrication systems shall be such as to ensure the safety of the ships and persons on board, and such arrangements in machinery spaces of Category A and, whenever practicable, in other machinery spaces shall at least comply with the provisions of subparagraphs (ii), (iv) (2), (v), (vi) and (vii) of paragraph (a) of this Regulation.

(c) *Arrangements for other inflammable oils.*

The arrangements for the storage, distribution and utilization of other inflammable oils employed under pressure inpower transmission systems, control and activating systems and heating systems shall be such as to ensure the safety of the ship and persons on board. In locations where means of ignition are present such arrangements shall at least comply with the provisions of subparagraphs (a) (iv) (2) and (a) (vi), and with the provisions of subparagraph (a) (viii) in respect of strength and construction, of this Regulation.

REGULATION 34

Special arrangements in machinery spaces

(a) The provisions of this Regulation shall apply to machinery spaces of Category A and, where the Administration considers it desirable, to other machinery spaces.

(b) (i) The number of skylights, doors, ventilators, openings in funnels to permit exhaust ventilation and other openings to machinery spaces shall be reduced to a minimum consistent with the needs of ventilation and the proper and safe working of the ship.

(ii) The flaps of such skylights where fitted shall be of steel. Suitable arrangements shall be made to permit the release of smoke in the event of fire, from the space to be protected.

(iii) Such doors other than power-operated watertight doors shall be arranged so that positive closure is assured in case of fire in the space, by power-opera-

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

sluitingsreëlings of deur die voorsiening van selfsluitende deure wat in staat is om toe te gaan teen 'n helling van 3½ grade teenoor die geslote posisie, en wat 'n faalvrye oophaakfasiliteit het wat voorsien is van 'n afstandbeheerde ontkoppelingsmeganisme.

(c) Vensters moet nie in masjinerieruimteomhulsels aangebring word nie.

(d) Beheermiddele moet verskaf word vir die—

(i) oop- en toemaak van dakvensters, toemaak van openinge in skoorstene wat normaalweg uitlaatventilering moontlik maak, en die sluiting van ventileerderdempers;

(ii) uitlaat van rook;

(iii) toemaak van kragbeheerde deure of die ontkoppelingsmeganisme van ander deure as kragbeheerde waterdigte deure;

(iv) afskakeling van ventileringswaaiers; en

(v) afskakeling van geforseerde trek -waaiers en kunsmatige trek -waaiers, oliebrandstofoorvoerpompe, oliebrandstofeenheidspompe en ander dergelike brandstofpompe.

(e) Die vereiste kontroles vir ventileringwaaiers moet voldoen aan die bepalings van paragraaf (f) van Regulasie 25 van hierdie Hoofstuk. Die kontroles vir elke vereiste vaste brandblusstelsel en dié wat vereis word ingevolge subparagrawe (d) (i), (ii), (iii) en (v) van hierdie Regulasie en subparagraaf (a) (v) van Regulasie 33 van hierdie Hoofstuk, moet by een kontroleposisie geleë wees, of tot tevredenheid van die Administrasie gegroepeer wees op so min plekke moontlik. Sodanige posisie of posisies moet geleë wees waar hulle nie afgesny sal word ingeval van 'n brand in die ruimte wat hulle bedien nie, en moet veilige toegang bied vanaf die oop dek.

DEEL C — BRANDBEVEILIGINGSMAATREËLS VIR PASSASIERSKEPE MET NIE MEER AS 36 PASSASIERS NIE

REGULASIE 35

Bouwerk

(a) Die romp, bobou, strukturele beskotte, dekke en dekhuise moet van staal of ander ekwivalente materiaal gebou wees.

(b) Waar brandbeskerming ooreenkomstig paragraaf (b) van Regulasie 40 van hierdie Hoofstuk gebruik word, kan die bobou van byvoorbeeld aluminiumallooi gemaak wees, op voorwaarde dat—

(i) vir die temperatuurstyging van die metaalkerns van Klas "A"-verdelings wanneer dit aan die standaardvuurproef onderwerp word, daar behoorlike aandag geskenk word aan die meganiese eienskappe van die materiaal;

(ii) die Administrasie tevrede is dat die hoeveelheid brandbare materiaal wat in dié betrokke deel van die skip paslik verminder is; die plafonne (d.i. bekleedsels van deksolderings) onbrandbaar is;

(iii) voldoende voorsiening gemaak is om te verseker dat die reëlings vir stuwing, tewaterlating en skeepgaan in oorlewingsvaartuie ingeval van brand, net so doeltreffend bly as wanneer die bobou van staal sou gewees het;

(iv) die kruine en hulsels van masjinerieruimtes van toereikend geïsoleerde staalkonstruksie, en dat die openinge daarin, as daar is, paslik geplaas en beskerm is om brandverspreiding te verhoed.

ted closing arrangements or by the provision of self-closing doors capable of closing against an inclunation of 3½ degrees opposing closure and having a fail-safe hook-back facility, provided with a remotely operated release device.

(c) Windows shall not be fitted in machinery space casings.

(d) Means of control shall be provided for—

(i) opening and closure of skylights, closure of openings in funnels which normally allow exhaust ventilation, and closure of ventilator dampers;

(ii) permitting the release of smoke;

(iii) closure of power-operated doors or release mechanism on doors other than power-operated watertight doors;

(iv) stopping ventilating fans; and

(v) stopping forced and induced draught fans, oil fuel transfer pumps, oil fuel unit pumps and other similar fuel pumps.

(e) The controls required for ventilating fans shall comply with the provisions of paragraph (f) of Regulation 25 of this Chapter. The controls for any required fixed fire-extinguishing system and those required by subparagraphs (d) (i), (ii), (iii) and (v) of this Regulation and of subparagraph (a) (v) of Regulation 33 of this Chapter shall be situated at one control position, or grouped in as few positions as possible to the satisfaction of the Administration. Such position or positions shall be located where they will not be cut off in the event of fire in the space they serve, and shall have a safe access from the open deck.

PART C—FIRE SAFETY MEASURES FOR PASSENGER SHIPS CARRYING NOT MORE THAN 36 PASSENGERS

REGULATION 35

Structure

(a) The hull, superstructure, structural bulkheads, decks and deckhouses shall be constructed of steel or other equivalent material.

(b) Where fire protection in accordance with paragraph (b) of Regulation 40 of this Chapter is employed, the superstructure may be constructed of, for example, aluminium alloy, provided that—

(i) for the temperature rise of the metallic cores of "A" Class divisions when exposed to the standard fire test, due regard is given to the mechanical properties of the material;

(ii) the Administration is satisfied that the amount of combustible materials used in the relevant part of the ship is suitably reduced; the ceilings (i.e. linings of deck heads) are non-combustible;

(iii) adequate provision is made to ensure that in the event of fire, arrangements for stowage, launching and embarkation into survival craft remain as effective as if the superstructure were constructed of steel;

(iv) crowns and casings of boiler and machinery spaces are of steel construction adequately insulated, and the openings therein, if any, are suitably arranged and protected to prevent spread of fire.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 36

Vertikale hoofsones

(a) Die romp, bobou en dekhuise moet in vertikale hoofsones onderverdeel wees. Trappe en nisse moet tot die minimum beperk word, maar waar hulle nodig is, moet hulle van Klas "A"-verdelings wees.

(b) Sover doenlik moet die beskotte wat die grense van die vertikale hoofsones bo die beskotdek vorm, regoor die waterdigte onderverdelingsbeskotte direk onder die beskotdek wees.

(c) Sodanige beskotte moet van dek tot dek en tot by die buiteromp of ander grense strek.

(d) Op skepe wat vir spesiale doeleindes ontwerp is, soos motorvoertuig- en treinveerbote, waar die installering van sulke beskotte die doel sal verydel waarvoor die skip gebou is, moet dit deur die ekwivalente middele vir die beheer en beperking van 'n brand vervang word wat spesifiek deur die Administrasie goedgekeur word.

REGULASIE 37

Openinge in Klas "A"-verdelings

(a) Waar Klas "A"-verdelings deurdring word vir die deurgang van elektriese kabels, pype, skagte, kanale, ens. vir lêers, balke, of ander strukture, moet maatreëls getref word om te verseker dat die brandweerstand nie belemmer word nie.

(b) Waar 'n ventilasiekanaal noodsaaklikerwys deur 'n vertikale hoofsonebeskot loop, moet 'n faalvrye, outomatiessluitende branddemper aangrensend aan die beskot aangebring word. Die demper moet ook van weerskante van die beskot af met die hand toegemaak kan word. Die beheerposisie moet maklik toeganklik en in 'n rooi weerkaatsende kleur gemerk wees. Die kanaal tussen die beskot en die demper moet van staal of ander ekwivalente materiaal wees, en as dit nodig is volgens 'n isoleringstandaard ooreenkomstig paragraaf (a) van hierdie regulasie. Die demper moet aan minstens een kant van die beskot toegerus wees met 'n sigbare aanwyser wat toon of die demper oop is.

(c) Met die uitsondering van luike tussen vrag-, pak- en bagasieruimtes, en tussen sulke ruimtes en die oop dekke moet alle openinge toegerus wees met permanent-aangehegte sluitmiddele wat ten minste so doeltreffend ten opsigte van brandweerstand is as die verdelings waarin hulle geïnstalleer is.

(d) Die konstruksie van alle deure en kosyne in Klas "A"-verdelings tesame met hulle bevestigingsmiddele wanneer hulle toe is, moet sover doenlik weerstand teen brand sowel as teen die deurgang van rook en vlamme voorsien ekwivalent aan dié van die beskotte waarin hulle geleë is. Waterdigte deure hoef nie geïsoleer te word nie.

(e) Dit moet moontlik wees vir net een persoon om elke deur van weerskante van die beskot af oop en toe te maak.

(f) Branddeure in vertikale hoofsonebeskotte en trapomsluitinge, behalwe waterdigte deure en dié wat normaalweg gesluit is, moet van die selfsluitende tipe wees wat in staat is om toe te gaan teen 'n helling van 3½ grade teenoor die geslote posisie. Alle sodanige deure, behalwe dié wat normaalweg gesluit is, moet in staat wees om gelyktydig in groepe vanaf 'n beheerpos losgelaat te word, of individueel vanaf 'n

REGULATION 36

Main vertical zones

(a) The hull, superstructure and deckhouses shall be subdivided into main vertical zones. Steps and recesses shall be kept to a minimum, but where they are necessary, they shall be of "A" Class divisions.

(b) As far as practicable, the bulkheads forming the boundaries of the main vertical zones above the bulkhead deck shall be in line with watertight subdivision bulkheads situated immediately below the bulkhead deck.

(c) Such bulkheads shall extend from deck to deck and to the shell or other boundaries.

(d) On ships designed for special purposes, such as automobile or railroad car ferries, where installation of such bulkheads would defeat the purpose for which the ship is intended, equivalent means for controlling and limiting a fire shall be substituted and specifically approved by the Administration.

REGULATION 37

Openings in "A" Class divisions

(a) Where "A" Class divisions are pierced for the passage of electric cables, pipes, trunks, ducts, etc., for girders, beams or other structures, arrangements shall be made to ensure that the fire resistance is not impaired.

(b) Where of necessity, a duct passes through a main vertical zone bulkhead, a fail-safe automatic closing fire damper shall be fitted adjacent to the bulkhead. The damper shall also be capable of being manually closed from both sides of the bulkhead. The operating position shall be readily accessible and be marked in red light-reflecting colour. The duct between the bulkhead and the damper shall be of steel or other equivalent material and, if necessary, to an insulating standard such as to comply with paragraph (a) of this Regulation. The damper shall be fitted on at least one side of the bulkhead with a visible indicator showing if the damper is in the open position.

(c) Except for hatches between cargo, store, and baggage spaces, and between such spaces and the weather decks, all openings shall be provided with permanently attached means of closing which shall be at least as effective for resisting fires as the divisions in which they are fitted.

(d) The construction of all doors and door frames in "A" Class divisions, with the means of securing them when closed, shall provide resistance to fire as well as to the passage of smoke and flame as far as practicable equivalent to that of the bulkheads in which the doors are situated. Watertight doors need not be insulated.

(e) It shall be possible for each door to be opened from either side of the bulkhead by one person only.

(f) Fire doors in main vertical zone bulkheads and stairway enclosures, other than power-operated water tight doors and those which are normally locked, shall be of the self-closing type capable of closing against an inclination of 3½ degrees opposing closure. All such doors, except those that are normally closed, shall be capable of release from a control station, either simultaneously or in groups, and also indi-

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

posisie by die deur. Die loslatingsmeganisme moet só ontwerp wees dat die deur outomaties sal sluit ingeval van 'n ontwrigting van die beheerstelsel; goedgekeurde kragbeheede waterdigte deure moet egter vir dié doel as aanneemlik beskou word. Vashouerhake wat nie deur die beheerpos losgelaat kan word nie, moet nie toegelaat word nie. Indien dubbelswaaideure toegelaat word moet hulle 'n sluitknipinrigting hê wat outomaties sluit met gebruik van die deurloslatingstelsel.

REGULASIE 38

Brandintegriteit van Klas "A"-verdelings

Waar Klas "A"-verdelings ingevolge hierdie deel vereis word, moet die Administrasie by sy besluit oor die hoeveelheid isolering wat voorsien moet word, gelei word deur die bepalings van Deel B van hierdie Hoofstuk, maar kan hy 'n vermindering van die hoeveelheid isolering ónder dié wat in daardie deel gestipuleer word, aanvaar.

REGULASIE 39

Skeiding van akkommodasieruimtes van masjinerie-, vrag- en diensruimtes

Die grensbeskotte en -dekke wat akkommodasieruimtes skei van masjinerie-, vrag- en diensruimtes moet van Klas "A"-verdelings gebou wees, en hierdie beskotte en dekke moet 'n isoleringswaarde tot bevrediging van die Administrasie hê met inagneming van die aard van die aangrensende ruimtes.

REGULASIE 40

Beveiliging van akkommodasie- en diensruimtes

Die akkommodasie- en diensruimtes moet beskerm word ooreenkomstig die bepalings van òf paragraaf (a) òf (b) van hierdie regulasie.

(a) (i) Binne akkommodasieruimtes moet alle omsluitingsbeskotte, behalwe dié wat volgens vereiste van Klas "A"-verdelings moet wees, gebou wees van Klas "B"-verdelings van onbrandbare materiaal, wat egter met brandbare materiaal ooreenkomstig subparagraaf (iii) van hierdie paragraaf beklee kan wees.

(ii) Alle gangbeskotte moet van dek tot dek strek. Ventilasieopeninge kan toegelaat word in die deure in Klas "B"-beskotte, verkieslik in die onderste deel. Alle ander omsluitingsbeskotte moet vertikaal van dek tot dek strek, en dwars tot by die buiteromp of ander grense, tensy onbrandbare plafonne en bekleding aangebring word wat die brandintegriteit sal verseker, in welke geval die beskotte teen die plafonne of bekleding kan doodloop.

(iii) Behalwe in vrag-, pos- en bagasieruimtes of verkoelde kompartemente van diensruimtes, moet alle bekledings, vloerbedekkings, plafonne en isolering van onbrandbare stowwe wees. Die gesamentlike volume van brandbare belegsels, lyswerk, versierings en fineer in enige akkommodasie- of openbare ruimte moet nie 'n volume te bowe gaan ekwivalent aan 2,54 millimeter (1/10 duim) fineer oor die gekombineerde oppervlakte van die mure en plafonne nie. Alle blootgestelde oppervlaktes in gange of trapomsluitings en in bedekte of ontoeganklike plekke moet lae vlamverspreidingseienskappe hê.*

* Hier word verwys na die *Guidelines on the Evaluation of Fire Hazard Properties of Materials*, soos deur die Organisasie aangeneem by Resolusie A. 166 (ES. IV).

vidually from a position at the door. The release mechanism shall be so designed that the door will automatically close in the event of disruption of the control system; however, approved power-operated watertight doors will be considered acceptable for this purpose. Hold-back hooks, not subject to control station release, will not be permitted. When double swing doors are permitted, they shall have a latch arrangement which is automatically engaged by the operation of the door release system.

REGULATION 38

Fire integrity of "A" Class divisions

Where "A" Class divisions are required under this Part, the Administration, in deciding the amount of insulation to be provided, shall be guided by the provisions of Part B of this Chapter, but may accept a reduction of the amount of insulation below that stipulated by that Part.

REGULATION 39

Separation of accommodation spaces from machinery, cargo and service spaces

The boundary bulkheads and decks separating accommodation spaces from machinery, cargo and service spaces shall be constructed of "A" Class divisions, and these bulkheads and decks shall have an insulation value to the satisfaction of the Administration having regard to the nature of the adjacent spaces.

REGULATION 40

Protection of accommodation and service spaces

The accommodation and service spaces shall be protected in accordance with the provisions of either paragraph (a) or (b) of this Regulation.

(a) (i) Within the accommodation spaces, all enclosure bulkheads other than those required to be of "A" Class divisions, shall be constructed of "B" Class divisions of non-combustible materials, which may, however, be faced with combustible materials in accordance with subparagraph (iii) of this paragraph.

(ii) All corridor bulkheads shall extend from deck to deck. Ventilation openings may be permitted in the doors in "B" Class bulkheads, preferably in the lower portion. All other enclosure bulkheads shall extend from deck to deck vertically, and to the shell or other boundaries transversely, unless non-combustible ceilings or linings such as will ensure fire integrity are fitted, in which case the bulkheads may terminate at the ceilings or linings.

(iii) Except in cargo spaces, mail rooms, baggage rooms, or refrigerated compartments of service spaces, all linings, grounds, ceilings and insulations shall be of non-combustible materials. The total volume of combustible facings, mouldings, decorations and veneers in any accommodation or public space shall not exceed a volume equivalent to 2,54 millimetres (1/10 inch) veneer on the combined area of the walls and ceilings. All exposed surfaces in corridors or stairway enclosures and in concealed or inaccessible spaces shall have low flamespread characteristics.*

* Reference is made to Guidelines on the Evaluation of Fire Hazard Properties of Materials, adopted by the Organization by Resolution A.166 (ES. IV).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(b) (i) Alle gangbeskotte in akkommodasieruimtes moet van staal wees of gebou wees van Klas "B"-panele.

(ii) 'n Goedgekeurde tipe brandverklikstelsel moet aangebring en so gerangskik wees dat dit 'n brand in alle aangewese omslote ruimtes vir die gebruik of diens van passasiers of bemanning (behalwe ruimtes wat geen werklike brandgevaar skep nie) sal opspoor en outomaties by een of meer punte of poste waar dit die vinnigste deur offisiere en bemanning opgemerk kan word, die teenwoordigheid of tekens van 'n brand en die posisie daarvan sal aandui.

REGULASIE 41

*Dekbedekkings**

Primêre dekbedekkings in akkommodasieruimtes, beheerposte, trappe en gange moet van goedgekeurde materiaal wees wat nie maklik ontbrand nie.

REGULASIE 42

Beveiliging van trappe en hysers in akkommodasie- en diensruimtes

(a) Alle trappe en ontsnappingsmiddele in akkommodasie- en diensruimtes moet van staal of ander geskikte materiaal wees.

(b) Passasiers- en dienshyserskagte, vertikale kokers vir lig en lug na passasiersruimtes, ensovoorts moet van Klas "A"-verdelings wees. Deure moet van staal of ander ekwivalente materiaal wees en moet wanneer hulle toe is, brandweerstand bied wat ten minste so doeltreffend is as dié van die skagte waarin hulle geïnstalleer is.

REGULASIE 43

Beveiliging van beheerposte en pakkamers

(a) Beheerposte moet deur Klas "A"-beskotte en dekke van die res van die skip geskei word.

(b) Die grensbeskotte van bagasiekamers, poskamers, pakkamers, verf- en lampsluitkaste, skeepskombuise en dergelike ruimtes moet van Klas "A"-verdelings wees. Ruimtes met hoogs ontvlambare ware moet só geplaas wees dat hulle die gevaar vir die passasiers en bemanning ingeval van 'n brand tot die minimum sal beperk.

REGULASIE 44

Vensters en patryspoorte

(a) Alle vensters en patryspoorte in beskotte wat akkommodasieruimtes van die buitelug skei, moet gebou word met rame wat van staal of ander geskikte materiaal gemaak is. Die glas moet met 'n ruitkraallys van metaal bevestig word.

(b) Alle vensters en patryspoorte in beskotte binne akkommodasieruimtes moet só gebou word dat die integriteitvereistes van die tipe beskot waarin hulle aangebring word, gehandhaaf word.

REGULASIE 45

Ventileringstelsels

Die kragventilering van masjinerieruimtes moet tot stilstand gebring kan word vanaf 'n maklik bereikbare plek buite die masjinerieruimtes.

* Hier word verwys na Improved Provisional Guidelines on Test Procedures for Primary Deck Coverings, soos deur die Organisasie aanvaar by Resolusie A.214 (VII).

(b) (i) All corridor bulkheads in accommodation spaces shall be of steel or be constructed of "B" Class panels.

(ii) A fire detecting system of an approved type shall be installed and so arranged as to detect the presence of fire in all enclosed spaces appropriated to the use or service of passengers or crew (except spaces which afford no substantial fire hazard) and automatically to indicate at one or more points or stations where it can be most quickly observed by officers and crew, the presence or indication of fire and also its location.

REGULATION 41

*Deck coverings**

Primary deck coverings within accommodation spaces, control stations, stairways and corridors shall be of approved material which will not readily ignite.

REGULATION 42

Protection of stairways and lifts in accommodation and service spaces

(a) All stairways and means of escape in accommodation and service spaces shall be of steel or other suitable materials.

(b) Passenger and service lift trunks, vertical trunks for light and air to passenger spaces, etc., shall be of "A" Class divisions. Doors shall be of steel or other equivalent material and when closed shall provide fire resistance at least as effective as the trunks in which they are fitted.

REGULATION 43

Protection of control stations and store-rooms

(a) Control stations shall be separated from the remainder of the ship by "A" Class bulkheads and decks.

(b) The boundary bulkheads of baggage rooms, mail rooms, store-rooms, paint and lamp lockers, galleys and similar spaces shall be of "A" Class divisions. Spaces containing highly inflammable stores shall be so situated as to minimize the danger to passengers or crew in the event of fire.

REGULATION 44

Windows and sidescuttles

(a) All windows and sidescuttles in bulkheads separating accommodation spaces from weather shall be constructed with frames of steel or other suitable material. The glass shall be retained by a metal glazing bead.

(b) All windows and sidescuttles in bulkheads within accommodation spaces shall be constructed so as to preserve the integrity requirements of the type of bulkhead in which they are fitted.

REGULATION 45

Ventilation systems

Power ventilation of machinery spaces shall be capable of being stopped from an easily accessible position outside the machinery spaces.

* Reference is made to Improved Provisional Guidelines on Test Procedures for Primary Deck Coverings, adopted by the Organization by Resolution A.214 (VII).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 46

Konstruksiebesonderhede

(a) Verf, vernis en dergelike preparate met 'n nitrosellulose of ander hoogs ontvlambare basis moet in geen deel van die skip gebruik word nie.

(b) Pype wat deur klas A- of B-verdelings loop, moet van materiaal wees wat deur die Administrasie goedgekeur is, met inagneming van die temperatuur wat sodanige verdelings sal moet weerstaan. Pype waardeur olie of brandbare vloeistowwe gevoer word, moet van 'n materiaal wees wat deur die Administrasie met inagneming van die gevaar van brand goedgekeur is. Materiaal wat geredelik deur hitte ondoeltreffend gemaak word, mag nie gebruik word vir buiteboordse spuipype, sanitêre afvoerpype en ander uitlate wat na aan die waterlyn geleë is en waar faling van die materiaal in die geval van brand die gevaar van oorstroming sou laat ontstaan nie.

(c) In ruimtes met hoofaandrywingsmasjinerie of olie-gestookte ketels of hulpbinnebrandmasjinerie met 'n totale kraglewering van 746 kW of meer, moet die volgende maatreëls getref word:

(i) Dakvensters moet van buite die ruimte af toegemaak kan word;

(ii) dakvensters met glasruite moet buite toegerus wees met permanent aangehegte luike van staal of ander ekwivalente materiaal;

(iii) enige venster wat die Administrasie in die hulsel van sulke ruimtes toelaat moet nie kan oopmaak nie en moet buite toegerus wees met 'n permanent aangehegte luik van staal of ander ekwivalente materiaal; en

(iv) in die vensters en dakvensters waarna daar in subparagrawe (i), (ii) en (iii) van hierdie paragraaf verwys word, moet draadversterkte ruite gebruik word.

REGULASIE 47

Brandverklikstelsels en brandblustoerusting

(a) *Rondediens en opsporing.*

(i) Daar moet in alle passasierskepe 'n doeltreffende rondediens in stand gehou word sodat enige uitbreek van brand onmiddellik ontdek kan word. Brandalarms wat met die hand bedien word, moet dwarsdeur die passasiers- en bemanningsakkommodasie aangebring word om die brandpatrolleerders in staat te stel om onmiddellik by die brug of brandbeheerpos alarm te maak.

(ii) In enige deel van die skip wat na die mening van die Administrasie nie vir die patrolleerders toeganklik is nie, moet 'n goedgekeurde brandalarm- of brandverklikstelsel verskaf word wat outomaties op een of meer geskikte punte of poste 'n aanduiding sal gee van die aanwesigheid of tekens van 'n brand en van die plek waar dit voorkom, behalwe wanneer daar tot tevredenheid van die Administrasie getoon word dat die skip gebruik word op reise wat so kort duur dat dit onredelik sou wees om hierdie bepaling toe te pas.

(iii) Die skip, of hy 'n nuwe of bestaande skip is, moet te alle tye op see of in die hawe (behalwe wanneer hy aan diens onttrek is) sodanig beman en toegerus wees om te verseker dat enige aanvanklike brandalarm onmiddellik deur 'n verantwoordelike lid van die bemanning ontvang word.

REGULATION 46

Details of construction

(a) Paints, varnishes and similar preparations having a nitro-cellulose or other highly inflammable base shall not be used in any part of the ship.

(b) Pipes penetrating "A" or "B" Class divisions shall be of a material approved by the Administration having regard to the temperature such divisions are required to withstand. Pipes conveying oil or combustible liquids shall be of a material approved by the Administration having regard to the fire risk. Materials readily rendered ineffective by heat shall not be used for overboard scuppers, sanitary discharges, and other outlets which are close to the water-line and where the failure of the material in the event of fire would give rise to danger of flooding.

(c) In spaces containing main propulsion machinery, or oil-fired boilers, or auxiliary internal combustion type machinery of total power output of 746 kW or over, the following measures shall be taken:

(i) Skylights shall be capable of being closed from outside the space;

(ii) skylights containing glass panels shall be fitted with external shutters of steel or other equivalent material permanently attached;

(iii) any window permitted by the Administration in casings of such spaces shall be of the non-opening type, and shall be fitted with an external shutter of steel or other equivalent material permanently attached; and

(iv) in the windows and skylights referred to in subparagraphs (i), (ii) and (iii) of this paragraph, wire reinforced glass shall be used.

REGULATION 47

Fire detection systems and fire-extinguishing equipment

(a) *Patrols and detection.*

(i) An efficient patrol system shall be maintained in all ships so that any outbreak of fire may be promptly detected. Manual fire alarms shall be fitted throughout the passenger and crew accommodation to enable the fire patrol to give an alarm immediately to the navigating bridge or fire control station.

(ii) An approved fire alarm or fire detecting system shall be provided which will automatically indicate at one or more suitable points or stations the presence or indication of fire and its location in any part of the ship which, in the opinion of the Administration, is not accessible to the patrol system, except where it is shown to the satisfaction of the Administration that the ship is engaged on voyages of such short duration that it would be unreasonable to apply this requirement.

(iii) The ship, whether new or existing, shall at all times when at sea, or in port (except when out of service), be so manned or equipped as to ensure that any initial fire alarm is immediately received by a responsible member of the crew.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(b) *Brandpompe en watertoevoerpype*

'n Skip moet toegerus word met brandpompe, watertoevoerpype, brandkrane en slange wat aan die bepalings van Regulasie 5 van hierdie Hoofstuk en aan die volgende vereistes voldoen.

(i) 'n Skip van 4 000 ton bruto tonnemaat en meer moet met minstens drie onafhanklik aangedrewe brandpompe en elke skip van minder as 4 000 ton bruto tonnemaat, met minstens twee sodanige brandpompe toegerus word.

(ii) In 'n skip van 1 000 ton bruto tonnemaat en meer moet die plasing van see-aansluitings, pompe en kragbronne wat hulle bedien, sodanig wees dat verseker word dat 'n brand in die een of ander afdeling nie al die brandpompe buite werking sal stel nie.

(iii) In 'n skip van minder as 1 000 ton bruto tonnemaat moet die inrigtings die goedkeuring van die Administrasie wegdra.

(c) *Brandkrane en slange en spuitstukke.*

(i) 'n Skip moet toegerus word met soveel brandslange as wat die Administrasie voldoende mag ag. Daar moet minstens een brandslang wees vir elk van die brandkrane wat by paragraaf (d) van Regulasie 5 van hierdie Hoofstuk vereis word, en hierdie slange moet slegs gebruik word vir die blus van brande of vir die toets van brandblustoestelle tydens brandoefeninge en ondersoeke.

(ii) In akkommodasie-, diens- en masjinerieruimtes moet die getal en posisies van brandkrane sodanig wees dat daar aan die vereistes van paragraaf (d) van Regulasie 5 van hierdie Hoofstuk voldoen kan word wanneer alle waterdigte deure en alle deure in vertikale hoofsonebeskotte toe is.

(iii) Die inrigtings moet sodanig wees dat minstens twee strale water enige deel van enige vragruimte kan bykom wanneer dié leeg is.

(iv) Alle vereiste brandkrane in die masjinerieruimtes van skepe met olie-gestookte ketels of met aandrywingsmasjinerie van die binnebrandtipe moet toegerus wees met slange met spuitstukke soos vereis ingevolge paragraaf (g) van Regulasie 5 van hierdie Hoofstuk.

(d) *Internasionale landaansluiting.*

(i) 'n Skip van 1 000 ton bruto tonnemaat en meer moet toegerus word met minstens een internasionale landaansluiting wat aan die bepalings van paragraaf (h) van Regulasie 5 van hierdie Hoofstuk voldoen.

(ii) Fasiliteite moet beskikbaar wees om dit moontlik te maak dat sodanige aansluiting aan weerskante van die skip gebruik word.

(e) *Draagbare brandblussers in akkommodasie- en diensruimtes.*

'n Skip moet in akkommodasie- en diensruimtes toegerus word met sodanige goedgekeurde draagbare brandblussers as wat die Administrasie gepas en voldoende ag.

(f) *Vaste brandsmoorinrigtings in vragruimtes.*

(i) Die vragruimtes van skepe van 1 000 ton bruto tonnemaat en meer moet beskerm word deur 'n vaste brandsmoorgasstelsel wat aan die bepalings van Regulasie 8 van hierdie Hoofstuk voldoen.

(ii) Wanneer daar tot tevredenheid van die Administrasie getoon word dat 'n skip gebruik word op reise wat so kort duur dat dit onredelik sou wees om die bepalings van subparagraaf (i) van hierdie paragraaf toe te pas en ook in die geval van skepe van minder

(b) *Fire pumps and fire main system.*

The ship shall be provided with fire pumps, fire main system, hydrants and hoses complying with Regulation 5 of this Chapter and with the following requirements:

(i) A ship of 4 000 tons gross tonnage and upwards shall be provided with at least three independently driven fire pumps and every ship of less than 4 000 tons gross tonnage with at least two such fire pumps.

(ii) In a ship of 1 000 tons gross tonnage and upwards, the arrangement of sea connections, pumps and sources of power for operating them shall be such as to ensure that a fire in any one compartment will not put all the fire pumps out of action.

(iii) In a ship of less than 1 000 tons gross tonnage the arrangements shall be to the satisfaction of the Administration.

(c) *Fire hydrants, hoses and nozzles.*

(i) The ship shall be provided with such number of fire hoses as the Administration may deem sufficient. There shall be least one fire hose for each of the hydrants required by paragraph (d) of Regulation 5 of this Chapter and these hoses shall be used only for the purposes of extinguishing fires or testing the fire-extinguishing apparatus at fire drills and surveys.

(ii) In accommodation, service and machinery spaces, the number and position of hydrants shall be such that the requirements of paragraph (d) of Regulation 5 of this Chapter may be complied with when all watertight doors and all doors in main vertical zone bulkheads are closed.

(iii) The arrangements shall be such that at least two jets of water can reach any part of any cargo space when empty.

(iv) All required hydrants in the machinery spaces of ships with oil-fired boilers or internal combustion type propelling machinery shall be fitted with hoses having nozzles as required in paragraph (g) of Regulation 5 of this Chapter.

(d) *International shore connection.*

(i) A ship of 1 000 tons gross tonnage and upwards shall be provided with at least one international shore connection, complying with paragraph (h) of Regulation 5 of this Chapter.

(ii) Facilities shall be available enabling such a connection to be used on either side of the ship.

(e) *Portable fire extinguishers in accommodation and service spaces.*

The ship shall be provided in accommodation and service spaces with such approved portable fire extinguishers as the Administration may deem to be appropriate and sufficient.

(f) *Fixed fire-extinguishing arrangements in cargo spaces.*

(i) The cargo spaces of ships of 1 000 tons gross tonnage and upwards shall be protected by a fixed gas fire-extinguishing system complying with Regulation 8 of this Chapter.

(ii) Where it is shown to the satisfaction of the Administration that a ship is engaged on voyages of such short duration that it would be unreasonable to apply the requirements of subparagraph (i) of this

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

as 1 000 ton bruto tonnemaat, moet die inrigtings in vragruimtes die goedkeuring van die Administrasie wegdra.

(g) *Brandblustoestelle in ketelkamers, ens.*

Op plekke waar oliegestookte hoof- of hulpketels geleë is of in ruimtes wat oliebrandstofeenhede of besinktenks bevat, moet die volgende inrigtings in die skip aangebring word:

(i) Een van die volgende vaste brandblusinstallasies moet aangebring word:

(1) 'n Drukwatersproeistelsel wat aan die bepalings van Regulasie 11 van hierdie Hoofstuk voldoen;

(2) 'n brandsmoorgasinstallasie wat aan die bepalings van Regulasie 8 van hierdie Hoofstuk voldoen;

(3) 'n vaste skuiminstallasie wat aan die bepalings van Regulasie 9 van hierdie Hoofstuk voldoen. (Die Administrasie kan vaste of mobiele drukwater- of skuimsproei-inrigtings vir die bestryding van brand bokant die vloerplate vereis.).

In elke geval waar die masjien- en ketelkamers nie geheel en al afsonderlik is nie, of indien brandolie vanaf die ketelkamer na die masjienkamerkimme kan dreineer, moet die gekombineerde masjien- en ketelkamers as een afdeling beskou word.

(ii) Daar moet in elke stookruimte in elke ketelkamer en in elke ruimte waarin 'n deel van die oliebrandstofinstallasie geleë is, minstens twee goedgekeurde draagbare blussers wees wat skuim of 'n ander goedgekeurde middel geskik vir die blus van oliebrande uitlaat. Daar moet minstens een goedgekeurde skuimtipeblusser met 'n inhoudsvermoë van minstens 136 liter (30 gelling) of die ekwivalent daarvan in elke ketelkamer wees. Hierdie blussers moet toegerus wees met slange op tolle wat geskik is om enige deel van die ketelkamer en ruimtes bevattende enige deel van die oliebrandstofinstallasies by te kom.

(iii) In elke stookruimte moet daar 'n houer wees met sand, saagsels deurtrokke van soda of ander goedgekeurde droë materiaal en wel in sodanige hoeveelhede as wat deur die Administrasie vereis word. As alternatief kan 'n goedgekeurde draagbare blusser in die plek daarvan verskaf word.

(h) *Brandbestrydingstoestelle in ruimtes wat masjinerie van die binnebrandtipe bevat.*

Waar binnebrandmasjiene gebruik word vir òf hoofaandrywing òf hulpdoeleindes wat neerkom op 'n gesamentlike kraglewering van minstens 746 kW, moet 'n skip met die volgende inrigtings toegerus wees:

(i) Daar moet een van die vaste inrigtings wees wat by subparagraaf (g) (i) van hierdie Regulasie vereis word.

(ii) In elke masjinerieruimte moet daar een goedgekeurde skuimtipe blusser wees met 'n inhoudsvermoë van minstens 45 liter (10 gelling) of die ekwivalent daarvan, en ook een goedgekeurde draagbare skuimtipe blusser vir elke 746 kW van die masjiene of deel daarvan, maar die totale getal draagbare blussers wat aldus verskaf is, mag nie kleiner as twee en hoef nie groter as ses te wees nie.

(i) *Brandbestrydingsinrigtings in ruimtes wat stoomturbines bevat en waarvoor geen vaste installasie nodig is nie.*

Die Administrasie moet spesiale oorweging skenk aan die brandblusinrigtings wat verskaf moet word in ruimtes wat stoomturbines bevat en deur waterdigte beskotte van ketelkamers geskei is.

paragraph and also in ships of less than 1 000 tons gross tonnage, the arrangements in cargo spaces shall be to the satisfaction of the Administration.

(g) *Fire-extinguishing appliances in boiler rooms, etc.*

Where main or auxiliary oil-fired boilers are situated, or in spaces containing oil fuel units or settling tanks, a ship shall be provided with the following arrangements:

(i) There shall be any one of the following fixed fire-extinguishing installations:

(1) A pressure water-spraying system complying with Regulation 11 of this Chapter;

(2) a gas fire-extinguishing installation complying with Regulation 8 of this Chapter;

(3) a fixed froth installation complying with regulation 9 of this Chapter. (The Administration may require fixed or mobile arrangements by pressure water or froth spraying to fight fire above the floor plates.)

In each case if the engine and boiler rooms are not entirely separate, or if fuel oil can drain from the boiler room into the engine room bilges, the combined engine and boiler rooms shall be considered as one compartment.

(ii) There shall be at least two approved portable extinguishers discharging froth or other approved medium suitable for extinguishing oil fires, in each firing space in each boiler room and each space in which a part of the oil fuel installation is situated. There shall be not less than one approved froth type extinguisher of at least 136 litres (30 gallons) capacity or equivalent in each boiler room. These extinguishers shall be provided with hoses on reels suitable for reaching any part of the boiler room and spaces containing any part of the oil fuel installations.

(iii) In each firing space there shall be a receptacle containing sand, sawdust impregnated with soda or other approved dry material, in such quantity as may be required by the Administration. Alternatively an approved portable extinguisher may be substituted therefor.

(h) *Fire-fighting appliances in spaces containing internal combustion type machinery.*

Where internal combustion type engines are used, either for main propulsion or for auxiliary purposes associated with a total power output of not less than 746 kW, a ship shall be provided with the following arrangements:

(i) There shall be one of the fixed arrangements required by subparagraph (g) (i) of this Regulation;

(ii) there shall be in each engine space one approved froth-type extinguisher of not less than 45 litres (10 gallons) capacity or equivalent and also one approved portable froth-type extinguisher for each 746 kW of engine power output or part thereof; but the total number of portable extinguishers so supplied shall be not less than two and need not exceed six.

(i) *Fire-fighting arrangements in spaces containing steam turbines and not requiring any fixed installation.*

The Administration shall give special consideration to the fire-extinguishing arrangements to be provided in spaces containing steam turbines which are separated from boiler rooms by watertight bulkheads.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(j) *Brandweermanuitrustings en persoonlike toerusting.*

(i) Die minimum getal brandweermanuitrustings wat voldoen aan die vereistes van Regulasie 14 van hierdie Hoofstuk, en van bykomende stelle persoonlike toerusting wat elk bestaan uit die items gestipuleer in subparagrawe (a) (i), (ii) en (iii) van daardie regulasie, aan boord, moet soos volg wees:

(1) Twee brandweermanuitrustings; en daarby

(2) vir elke 80 meter (262 voet) of deel daarvan, van die som van die lengtes van alle passasiersruimtes en diensruimtes op die dek wat sulke ruimtes bevat of, indien daar meer as een so 'n dek is, op die dek met die grootste som van sulke lengtes: twee brandweermanuitrustings en twee stelle persoonlike toerusting, waarvan elke stel bestaan uit die items gestipuleer in regulasie 14 (a) (i), (ii) en (iii) van hierdie hoofstuk.

(ii) Vir elke brandweermanuitrusting wat ingeboude asemhalingsapparaat ooreenkomstig paragraaf (b) van Regulasie 14 van hierdie Hoofstuk insluit, moet daar reserwevullings beskikbaar wees op 'n skaal wat die Administrasie goedkeur.

(iii) Brandweermanuitrustings en stelle persoonlike toerusting moet gereed vir gebruik en ver van mekaar versprei gebêre word. Minstens twee brandweermanuitrustings en een stel persoonlike toerusting moet op enige enkele posisie beskikbaar wees.

REGULASIE 48

Nooduitgange

(a) In en vanaf alle passasiers- en bemanningsruimtes en ruimtes waarin bemanningslede normaalweg diens verrig, behalwe masjinerieruimtes, moet trappe en lere so ingerig word dat hulle geredelik ontsnapping na die reddingsbootinskepingsdek moontlik maak. In die besonder moet daar aan die volgende voorsorgmaatreëls voldoen word:

(i) Onderkant die beskotdek, moet daar vir elke waterdigte afdeling of soortgelyke beperkte ruimte of groep ruimtes twee nooduitgange verskaf word, waarvan minstens een onafhanklik van waterdigte deure moet wees. Met behoorlike inagneming van die aard en ligging van die betrokke ruimtes en van die getal persone wat gewoonlik daar gehuisves kan word of werksaam mag wees, kan die Administrasie van een van hierdie nooduitgange afsien.

(ii) Bokant die beskotdek moet daar vanuit elke vertikale hoofsone of soortgelyke beperkte ruimte of groep ruimtes minstens twee praktiese nooduitgange wees, waarvan minstens een toegang moet verleen tot 'n trap wat 'n vertikale nooduitgang vorm.

(iii) Minstens een van die nooduitgange moet wees langs 'n ingeslote trap wat geredelik toeganklik is en wat vir sover doenlik vanaf die vlak van sy oorsprong tot by die reddingsbootinskepingsdek onafgebroke beskutting teen brand moet verskaf. Die wydte, getal en onafgebrokenheid van die trappe moet die goedkeuring van die Administrasie wegdra.

(b) In masjinerieruimtes moet daar vanaf elke masjienkamer, astonnel en ketelkamer twee nooduitgange verskaf word, waarvan een 'n waterdigte deur kan wees. In masjinerieruimtes, waar geen waterdigte deur beskikbaar is nie, moet die twee nooduitgange die vorm aanneem van twee stelle staallere, so ver van mekaar as moontlik, wat lei na deure in die kaste wat insgelyks van mekaar geskei is en vanwaar toegang tot die inskepingsdek verleen word. In die geval van skepe

(j) *Fireman's outfits and personal equipment.*

(i) The minimum number of fireman's outfits complying with the requirements of Regulation 14 of this Chapter, and of additional sets of personal equipment, each such set comprising the items stipulated in subparagraphs (a) (i), (ii) and (iii) of that Regulation, to be carried, shall be as follows:

(1) Two fireman's outfits; and in addition

(2) for every 80 metres (262 feet) or part thereof, of the aggregate of the lengths of all passenger spaces and service spaces on the deck which carries such spaces or, if there is more than one such deck, on the deck which has the largest aggregate of such lengths, two fireman's outfits and two sets of personal equipment, each such set comprising the items stipulated in Regulation 14 (a) (i), (ii) and (iii) of this Chapter.

(ii) For each fireman's outfit which includes a self-contained breathing apparatus as provided in paragraph (b) of Regulation 14 of this Chapter, spare charges shall be carried on a scale approved by the Administration.

(iii) Fireman's outfits and sets of personal equipment shall be stored in widely separated positions ready for use. At least two fireman's outfits and one set of personal equipment shall be available at any one position.

REGULATION 48

Means of escape

(a) In and from all passenger and crew spaces and spaces in which crew are normally employed, other than machinery spaces, stairways and ladderways shall be arranged so as to provide ready means of escape to the lifeboat embarkation deck. In particular the following precautions shall be complied with:

(i) Below the bulkhead deck, two means of escape, at least one of which shall be independent of watertight doors, shall be provided for each watertight compartment or similarly restricted space or group of spaces. One of these means of escape may be dispensed with by the Administration, due regard being paid to the nature and the location of spaces concerned, and to the number of persons who normally might be quartered or employed there;

(ii) above the bulkhead deck, there shall be at least two practical means of escape from each main vertical zone or similarly restricted space or group of spaces at least one of which shall give access to a stairway forming a vertical escape; and

(iii) at least one of the means of escape shall be by means of a readily accessible enclosed stairway, which shall provide as far as practicable continuous fire shelter from the level of its origin to the lifeboat embarkation deck. The width, number and continuity of the stairways shall be to the satisfaction of the Administration.

(b) In machinery spaces, two means of escape, one of which may be a watertight door, shall be provided from each engine room, shaft tunnel and boiler room. In machinery spaces, where no watertight door is available, the two means of escape shall be formed by two sets of steel ladders as widely separated as possible leading to doors in the casing similarly separated and from which access is provided to the embarkation

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

van minder as 2 000 ton bruto tonnemaat, kan die Administrasie met behoorlike inagneming van die wydte en die rangskikking van die kaste, van hierdie vereiste afsien.

REGULASIE 49

Oliebrandstof vir binnebrandenjins

Geen binnebrandmasjien moet vir enige vaste installasie in 'n skip gebruik word indien sy ontbrandingspunt 43 °C (110 °F) of laer is (geslote houer-toets) soos bepaal deur 'n goedgekeurde vlampuntapparaat nie.

REGULASIE 50

Spesiale maatreëls in masjinerieruimtes

(a) Middele moet voorsien word om ventileringwaaiers tot stilstand te bring wat masjinerie- en vragruimtes bedien, en om alle deure, lugopeninge, ringvormige ruimtes om skoorstene en ander openinge na sulke ruimtes toe te maak. Hierdie middele moet van buite sodanige ruimtes beheer kan word ingeval van brand.

(b) Masjiene wat geforseerde trek-waaiers en kunsmatige trek-waaiers, oliebrandstofoorvoerpompe, oliebrandstofeenheidpompe en ander soortgelyke brandstofpompe aandryf, moet toegerus wees met afstandbeheerkontroles buite die betrokke ruimte sodat hulle tot stilstand gebring kan word ingeval 'n brand binne die ruimte ontstaan waarin hulle geleë is.

(c) Elke oliebrandstofsuigpyp vanaf 'n bergings-, besinkings- of daaglikse gebruikstenk wat bo die dubbelboom geleë is, moet toegerus wees met 'n kraan of klep wat van buite die betrokke ruimte af beheer kan word ingeval 'n brand uitbreek in die ruimte waarin sulke tenks geleë is. In die spesiale geval van dieptenks in enige as- of pyptonnel, moet kleppe aan die tenks aangebring word, maar ingeval van brand kan beheer uitgeoefen word deur middel van 'n bykomende klep in die pyp of leidings buite die tonnel of tonnels.

DEEL D—BRANDBEVEILIGINGSMAATREËLS VIR VRAGSKEPE*

REGULASIE 51

Algemene benodighede vir vragskepe van 4 000 ton bruto tonnemaat en groter behalwe tenkskepe wat deur Deel E van hierdie Hoofstuk gedek word.

(a) Die romp, bobou, strukturele beskotte, dekke en dekhuise moet van staal wees behalwe in gevalle waar die Administrasie in spesiale gevalle, met inagneming van die brandrisiko, die gebruik van ander geskikte materiaal kan toelaat.

(b) In akkommodasieruimtes moet die gangbeskotte van staal of van Klas "B"-panele gemaak wees.

(c) Dekbedekkings in akkommodasieruimtes op die dekke wat die bokant van masjinerie- en vragruimtes vorm, moet van 'n soort wees wat nie maklik ontbrand nie.†

* Hier word verwys na die *Recommendation on Safety Measures for Periodically Unattended Machinery Spaces of Cargo Ships additional to those normally considered necessary for an Attended Machinery Space*, soos deur die Organisasie aangeneem by Resolusie A. 211 (vii).

† Hier word verwys na die *Improved Provisional Guidelines on Test Procedures for Primary Deck Coverings* soos deur die Organisasie aangeneem by Resolusie A. 214 (VII).

deck. In the case of ships of less than 2 000 tons gross tonnage, the Administration may dispense with this requirement, due regard being paid to the width and the disposition of the casing.

REGULATION 49

Oil fuel used for internal combustion engines

No internal combustion engine shall be used for any fixed installation in a ship if its fuel has a flashpoint of 43 °C (110 °F) or less (closed cup test) as determined by an approved flashpoint apparatus.

REGULATION 50

Special arrangements in machinery spaces

(a) Means shall be provided for stopping ventilating fans serving machinery and cargo spaces and for closing all doorways, ventilators, annular spaces around funnels and other openings to such spaces. These means shall be capable of being operated from outside such spaces in case of fire.

(b) Machinery driving forced and induced draught fans, oil fuel transfer pumps, oil fuel unit pumps and other similar fuel pumps shall be fitted with remote controls situated outside the space concerned so that they may be stopped in the event of a fire arising in the space in which they are located.

(c) Every oil fuel suction pipe from a storage, settling or daily service tank situated above the double bottom shall be fitted with a cock or valve capable of being closed from outside the space concerned in the event of a fire arising in the space in which such tanks are situated. In the special case of deep tanks situated in any shaft or pipe tunnel, valves on the tanks shall be fitted but control in event of fire may be effected by means of an additional valve on the pipeline or lines outside the tunnel or tunnels.

PART D—FIRE SAFETY MEASURES FOR CARGO SHIPS*

REGULATION 51

General requirements for cargo ships of 4 000 tons gross tonnage and upwards other than tankers covered by Part E of this Chapter

(a) The hull, superstructure, structural bulkheads, decks and deckhouses shall be constructed of steel, except where the Administration may sanction the use of other suitable material in special cases, having in mind the risk of fire.

(b) In accommodation spaces, the corridor bulkheads shall be of steel or be constructed of "B" Class panels.

(c) Deck coverings within accommodation spaces on the decks forming the crown of machinery and cargo spaces shall be of a type which will not readily ignite.†

* Reference is made to Recommendation on Safety Measures for Periodically Unattended Machinery Spaces of Cargo Ships additional to those normally considered necessary for an Attended Machinery Space, adopted by the Organization by Resolution A.211 (VII).

† Reference is made to Improved Provisional Guidelines on Test Procedures for Primary Deck Coverings, adopted by the Organization by Resolution A.214 (VII).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(d) Binnetrappe onder die oop dek moet van staal of ander geskikte materiaal wees. Bemanningshyserskagte binne akkommodasieruimtes moet van staal of ekwivalente materiaal wees.

(e) Beskotte van skeepskombuise, verfkamers, lampkamers, bootmansluitkaste langs akkommodasieruimtes en noodgeneratorkamers, as daar is, moet van staal of ekwivalente materiaal wees.

(f) In akkommodasie- en masjinerieruimtes moet verf, vernis en dergelike preparate met 'n nitrosellulose- of ander hoogs ontvlambare basis nie gebruik word nie.

(g) Pype wat olie of brandbare vloeistowwe vervoer, moet van 'n materiaal wees wat die Administrasie met inagneming van die brandrisiko goedgekeur het. Stowwe wat maklik deur hitte ondoeltreffend gemaak kan word, moet nie gebruik word vir oorboordse spuipype, sanitêre uitlate en ander uitlate naby die waterlyn waar die onklaarraking van die materiaal, ingeval van brand, 'n oorstromingsgevaar kan skep nie.

(h) Kragventilering na die masjinerieruimtes moet van 'n maklik bereikbare plek buite die masjinerieruimtes tot stilstand gebring kan word.

REGULASIE 52

Brandblusstelsels en -toerusting

(a) *Toepassing.*

Waar skepe 'n kleiner bruto tonnemaat het as wat in hierdie regulasie genoem word, moet die maatreëls ten opsigte van die items wat in hierdie regulasie gedek word, die Administrasie se goedkeuring wegdra.

(b) *Brandpompe en brandweerpypstelsel.*

Die skip moet voorsien wees van brandpompe, 'n brandweerpypstelsel, brandkrane en -slange wat voldoen aan Regulasie 5 van hierdie Hoofstuk en aan die volgende vereistes:

(i) 'n Skip van 1 000 ton bruto tonnemaat en groter moet voorsien wees van twee onafhanklik aangedrewe kragpompe.

(ii) Indien 'n brand in enige enkele kompartement van 'n skip van 1 000 ton bruto tonnemaat en groter alle pompe buite werking kan stel, moet daar alternatiewe middele wees om water vir brandbestryding te voorsien. Op 'n skip van 2 000 ton bruto tonnemaat en groter moet hierdie alternatiewe middel 'n onafhanklik aangedrewe vaste noodpomp wees. Hierdie noodpomp moet twee strale water tot tevredenheid van die Administrasie kan lewer.

(c) *Brandkrane, -slange en -spuitstukke.*

(i) Op 'n skip van 1 000 ton bruto tonnemaat en groter moet die getal brandslange wat voorsien word, elk volledig met koppel- en spuitstukke, een wees vir elke 30 meter (100 voet) lengte van die skip en een reserwe, maar in geen geval minder as vyf altesame nie. Hierdie getal sluit nie enige slange in wat vir 'n masjien- of ketelkamer vereis word nie. Die Administrasie kan die vereiste getal slange vermeerder ten einde te verseker dat toereikende getalle te alle tye beskikbaar en toeganklik is, met inagneming van die soort skip en die aard van die doel waarvoor die skip gebruik word.

(d) Interior stairways below the weather deck shall be of steel or other suitable material. Crew lift trunks within accommodation shall be of steel or equivalent material.

(e) Bulkheads of galleys, paint stores, lamp rooms, boatswain's stores when adjacent to accommodation spaces and emergency generator rooms if any, shall be of steel or equivalent material.

(f) In accommodation and machinery spaces, paints, varnishes and similar preparations having a nitro-cellulose or other highly inflammable base shall not be used.

(g) Pipes conveying oil or combustible liquids shall be of a material approved by the Administration having regard to the fire risk. Materials readily rendered ineffective by heat shall not be used for overboard scuppers, sanitary discharges, and other outlets which are close to the water-line and where the failure of the material in the event of fire would give rise to danger of flooding.

(h) Power ventilation of machinery spaces shall be capable of being stopped from an easily accessible position outside the machinery spaces.

REGULATION 52

Fire-extinguishing systems and equipment

(a) *Application.*

Where ships have a lower gross tonnage than those quoted in this Regulation, the arrangements for the items covered in this Regulation shall be to the satisfaction of the Administration.

(b) *Fire pumps and fire main system.*

The ship shall be provided with fire pumps, fire main system, hydrants and hoses complying with Regulation 5 of this Chapter and with the following requirements:

(i) A ship of 1 000 tons gross tonnage and upwards shall be provided with two independently driven power pumps.

(ii) In a ship of 1 000 tons gross tonnage and upwards if a fire in any one compartment could put all the pumps out of action, there must be an alternative means of providing water for fire fighting. In a ship of 2 000 tons gross tonnage and upwards this alternative means shall be a fixed emergency pump independently driven. This emergency pump shall be capable of supplying two jets of water to the satisfaction of the Administration.

(c) *Fire hydrants, hoses and nozzles.*

(i) In a ship of 1 000 tons gross tonnage and upwards the number of fire hoses to be provided, each complete with couplings and nozzles, shall be one for each 30 metres (100 feet) length of the ship and one spare but in no case less than five in all. This number does not include any hoses required in any engine or boiler room. The Administration may increase the number of the hoses required so as to ensure that hoses in sufficient number are available and accessible at all times, having regard to the type of the ship and the nature of the trade on which the ship is employed.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(ii) In akkommodasie-, diens- en masjinerieruimtes moet die getal en plasing van die brandkrane sodanig wees dat dit voldoen aan die vereistes van paragraaf (d) van Regulasie 5 van hierdie Hoofstuk.

(iii) In die skip moet die inrigting sodanig wees dat minstens twee strale water enige deel van enige vragruimte kan bereik wanneer dit leeg is.

(iv) Alle vereiste brandkrane in die masjinerieruimtes van skepe met oliegestookte ketels of binnebrandaandrywingsmasjinerie moet toegerus wees met slange met spuitstukke soos vereis in paragraaf (g) van Regulasie 5 van hierdie Hoofstuk.

(d) *Internasionale landaansluiting.*

(i) 'n Skip van 1 000 ton bruto tonnemaat en groter moet voorsien wees van minstens een internasionale landaansluiting wat voldoen aan paragraaf (h) van Regulasie 5 van hierdie Hoofstuk.

(ii) Fasiliteite moet beskikbaar wees wat so 'n koppeling in staat stel om aan enige kant van die skip gebruik te word.

(e) *Draagbare brandblussers in akkommodasie- en diensruimtes.*

In akkommodasie- en diensruimtes moet die skip voorsien wees van sodanige goedgekeurde draagbare brandblussers as wat die Administrasie gepas en voldoende ag, in elk geval moet daar nie minder as vyf wees nie vir skepe van 1 000 ton bruto tonnemaat en groter.

(f) *Vaste brandblusinrigtings in vragruimtes.*

(i) Die vragruimtes van skepe van 2 000 ton bruto tonnemaat en groter moet beskerm word deur 'n vaste brandblusstelsel wat voldoen aan Regulasie 8 van hierdie Hoofstuk.

(ii) Die Administrasie kan die vragruime van enige skip (behalwe die tenks van 'n tenkskip) vrystel van die vereistes van subparagraaf (i) van hierdie paragraaf—

(1) indien hulle voorsien is van staalluikdeksels en doeltreffende middele om alle ventileerders en ander openinge na die ruime af te sluit;

(2) indien die skip uitsluitlik gebou en bedoel is vir die vervoer van goedere soos erts, steenkool of graan; of

(3) war daar tot tevredenheid van die Administrasie getoon kan word dat dit op sulke kort reise gebruik word dat dit onredelik sou wees om die vereiste toe te pas.

(iii) Elke skip moet, terwyl hy plofstowwe van so 'n aard of hoeveelheid vervoer as wat passasierskepe ingevolge Regulasie 7 van Hoofstuk VII van hierdie Konvensie nie mag vervoer nie, afgesien daarvan om te voldoen aan die vereistes van hierdie Regulasie, voldoen aan die volgende vereistes:

(1) Stoom mag in geen kompartement met plofstof gebruik word nie. Vir die doeleindes van hierdie subparagraaf beteken "kompartement" alle ruimtes tussen twee aangrensende permanente beskotte en sluit dit die onderste ruim en alle vragruimtes daarbo in.

(2) Hierby moet daar in elke kompartement met plofstowwe en in aangrensende vragruimtes 'n rook- of brandverklikstelsel in elke vragruimte wees.

(ii) In accommodation, service and machinery spaces, the number and position of hydrants shall be such as to comply with the requirements of paragraph (d) of Regulation 5 of this Chapter.

(iii) In a ship the arrangements shall be such that at least two jets of water can reach any part of any cargo space when empty.

(iv) All required hydrants in the machinery spaces of ships with oil-fired boilers or internal combustion type propelling machinery shall be fitted with hoses having nozzles as required in paragraph (g) of Regulation 5 of this Chapter.

(d) *International shore connection.*

(i) A ship of 1 000 tons gross tonnage and upwards shall be provided with at least one international shore connection, complying with paragraph (h) of Regulation 5 of this Chapter.

(ii) Facilities shall be available enabling such a connection to be used on either side of the ship.

(e) *Portable fire extinguishers in accommodation and service spaces.*

The ship shall be provided in accommodation and service spaces with such approved portable fire extinguishers as the Administration may deem to be appropriate and sufficient; in any case, their number shall not be less than five for ships of 1 000 tons gross tonnage and upwards.

(f) *Fixed fire-extinguishing arrangements in cargo spaces.*

(i) Cargo spaces of ships of 2 000 tons gross tonnage and upwards shall be protected by a fixed fire-extinguishing system complying with Regulation 8 of this Chapter.

(ii) The Administration may exempt from the requirements of subparagraph (i) of this paragraph the cargo holds of any ship (other than the tanks of a tanker)—

(1) if they are provided with steel hatch covers and effective means of closing all ventilators and other openings leading to the holds;

(2) if the ship is constructed and intended solely for carrying such cargoes as ore, coal or grain; or

(3) where it is shown to the satisfaction of the Administration that the ship is engaged on voyages of such short duration that it would be unreasonable to apply the requirement.

(iii) Every ship in addition to complying with the requirements of this Regulation shall, while carrying explosives of such nature or in such quantity as are not permitted to be carried in passenger ships under Regulation 7 of Chapter VII of this Convention comply with the following requirements:

(1) Steam shall not be used in any compartment containing explosives. For the purpose of this subparagraph, "compartment" means all spaces contained between two adjacent permanent bulkheads and includes the lower hold and all cargo spaces above it.

(2) In addition, in each compartment containing explosives and in adjacent cargo compartments, there shall be provided a smoke-or fire-detection system in each cargo space.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(g) *Brandblusapparaat in ketelkamers, ens.*

Waar hoof- of hulp- oliegestookte ketels geleë is, of in ruimtes met oliebrandstofeenhede of besinkingstenks moet 'n skip van 1 000 ton bruto tonnemaat en groter van die volgende inrigtings voorsien wees:

(i) Daar moet enigeen van die volgende vaste brandblusstelsels wees:

(1) 'n Drukwatersproeistelsel wat voldoen aan die bepalings van Regulasie 11 van hierdie Hoofstuk.

(2) 'n Brandblusinstallasie wat voldoen aan Regulasie 8 van hierdie Hoofstuk.

(3) 'n Vaste skuiminstallasie wat voldoen aan Regulasie 9 van hierdie Hoofstuk. (Die Administrasie kan vaste of verskuifbare drukwater- of skuimende inrigtings vereis om brande bo die vloerplate te bestry.).

In elke geval waar die masjien- en die ketelkamer nie heeltemal afsonderlik is nie, of as olie vanuit die ketelkamer na die masjienkamer kan dreineer, moet die masjien- en die ketelkamer saam as een kompartement beskou word.

(ii) Daar moet minstens twee goedgekeurde draagbare blussers wees wat skuim of 'n ander goedgekeurde middel vir die blus van oliebrande spuit in elke stookruimte in elke ketelkamer en elke ruimte waarin 'n deel van die oliebrandstofinstallasie geleë is. Daarby moet daar minstens een blusser soos hierbo beskryf met 'n kapasiteit van 9 liter (2 gelling) wees vir elke brander; met dien verstande dat die gesamentlike kapasiteit van die bykomende blusser of blussers nie 45 liter (10 gelling) vir enige enkele ketelkamer hoef te oorskry nie.

(iii) In elke stookruimte moet daar 'n houer met sand, saagsels geweek in soda, of 'n ander goedgekeurde droë materiaal wees in sodanige hoeveelheid as wat die Administrasie mag vereis. Alternatiewelik kan dit vervang word deur 'n goedgekeurde draagbare blusser.

(h) *Brandblusapparaat in ruimtes met binnebrandmasjinerie.*

Waar binnebrandenjins vir hoofaandrywing of vir hulpdoeleindes gebruik word, met 'n totale kraglewering van nie minder nie as 746 kW, moet 'n skip van 1 000 ton bruto tonnemaat en groter van die volgende voorsien wees:

(i) Daar moet een van die brandblusstelsels, vereis ingevolge subparagraaf (g) (i) van hierdie Regulasie, wees.

(ii) Daar moet in elke masjinerieruimte een goedgekeurde skuimblusser van minstens 45 liter (10 gelling) of ekwivalent wees en ook een goedgekeurde draagbare skuimblusser vir elke 746 kW masjienkraglewering of gedeelte daarvan; maar die totale getal draagbare skuimblussers wat so verskaf word, moet nie minder as twee en hoef nie meer as ses te wees nie.

(i) *Brandblusinrigtings in ruimtes met stoomturbines en wat nie enige vaste inrigting vereis nie.*

Die Administrasie moet spesiale oorweging skenk aan die brandblusinrigtings wat voorsien moet word in ruimtes met stoomturbines wat deur waterdigte beskotte van die ketelkamers geskei is.

(g) *Fire-extinguishing appliances in boiler rooms, etc.*

Where main or auxiliary oil-fired boilers are situated, or in spaces containing oil fuel units or settling tanks, a ship of 1 000 tons gross tonnage and upwards shall be provided with the following arrangements:

(i) There shall be any one of the following fixed fire-extinguishing installations:

(1) A pressure water-spraying system complying with Regulation 11 of this Chapter.

(2) A fire-extinguishing installation complying with Regulation 8 of this Chapter.

(3) A fixed froth installation complying with Regulation 9 of this Chapter. (The Administration may require fixed or mobile arrangements by pressure water or froth spraying to fight fire above the floor plates.)

In each case if the engine and boiler rooms are not entirely separate, or if fuel oil can drain from the boiler room into the engine room bilges, the combined engine and boiler rooms shall be considered as one compartment.

(ii) There shall be at least two approved portable extinguishers discharging froth or other approved medium suitable for extinguishing oil fires in each firing space in each boiler room and each space in which a part of the oil fuel installation is situated. In addition, there shall be at least one extinguisher of the same description with a capacity of 9 litres (2 gallons) for each burner, provided that the total capacity of the additional extinguisher or extinguishers need not exceed 45 litres (10 gallons) for any one boiler room.

(iii) In each firingspace there shall be a receptacle containing sand, sawdust impregnated with soda, or other approved dry material in such quantity as may be required by the Administration. Alternatively an approved portable extinguisher may be substituted therefor.

(h) *Fire-fighting appliances in spaces containing internal combustion type machinery.*

Where internal combustion type engines are used, either for main propulsion machinery, or for auxiliary purposes associated with a total power output of not less than 746 kW, a ship of 1 000 tons gross tonnage and upwards shall be provided with the following arrangements:

(i) There shall be one of the fixed arrangements required by subparagraph (g) (i) of this Regulation.

(ii) There shall be in each engine space one approved froth-type extinguisher of not less than 45 litres (10 gallons) capacity or equivalent and also one approved portable froth extinguisher for each 746 kW of engine power output or part thereof; but the total number of portable extinguishers so supplied shall be not less than two and need not exceed six.

(i) *Fire-fighting arrangements in spaces containing steam turbines and not requiring any fixed installation.*

The Administration shall give special consideration to the fire-extinguishing arrangements to be provided in spaces containing steam turbines which are separated from boiler rooms by watertight bulkheads.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(j) *Brandweermanuitrustings en persoonlike toerusting.*

(i) Daar moet op nuwe en bestaande skepe ten minste twee brandweermanuitrustings wees wat voldoen aan die vereistes van Regulasie 14 van hierdie Hoofstuk. Daarby kan Administrasies op groot skepe bykomende stelle persoonlike toerusting, en op tenkskepe en spesiale skepe soos fabriekskepe bykomende brandweermanuitrustings, vereis.

(ii) Vir elke brandweermanuitrusting wat 'n ingeboude asemhalingsapparaat ooreenkomstig paragraaf (b) van Regulasie 14 van hierdie Hoofstuk insluit, moet daar reserwevullings beskikbaar wees op 'n skaal wat die Administrasie goedkeur.

(iii) Brandweermanuitrustings en stelle persoonlike toerusting moet maklik toeganklik en gereed vir gebruik gebêre word, en waar daar meer as een brandweermanuitrusting en stel persoonlike toerusting is, moet hulle in ver vanmekaar verwyderde posisies gebêre word.

REGULASIE 53

Nooduitgange

(a) In en vanaf alle bemannings- en passasiersruimtes en ruimtes waarin bemanningslede normaalweg diens verrig, behalwe masjinerieruimtes, moet trappe en lere so ingerig word dat hulle geredelik ontsnapping na die reddingsbootinskepingsdek moontlik maak.

(b) In masjinerieruimtes moet daar twee nooduitgange, waarvan een 'n waterdigte deur kan wees, voorsien word vanuit elke masjienkamer, astonnel en ketelkamer. In masjinerieruimtes waar daar geen waterdigte deur beskikbaar is nie, moet die twee nooduitgange bestaan uit twee staallere, so ver uitmekaar as moontlik wat lei na soortgelyk verwyderde deure in die hulsel waarvandaan toegang verleen word tot die inskepingsdek. In die geval van skepe kleiner as 2 000 ton bruto tonnemaat, kan die Administrasie van hierdie vereiste afsien met behoorlike inagneming van die wydte en inrigting van die hulsel.

REGULASIE 54

Spesiale maatreëls in masjienerieruimtes

(a) Middele moet voorsien word om ventileringwaaiers tot stilstand te bring wat masjinerie- en vragruimtes bedien, en om alle deure, lugopeninge, ringvormige ruimtes om skoorstene en ander openinge na sulke ruimtes toe te maak. Hierdie middele moet van buite sodanige ruimtes beheer kan word ingeval van brand.

(b) Masjinerie wat geforseerde trek-waaiers en kunsmatige trek-waaiers, oliebrandstofoorvoerpompe, oliebrandstofeenheidpompe en ander soortgelyke brandstofpompe aandryf, moet toegerus wees met afstandbeheerkontroles buite die betrokke ruimte sodat hulle tot stilstand gebring kan word ingeval 'n brand binne die ruimte ontstaan waarin hulle geleë is.

(c) Elke oliebrandstofsuigpyp vanaf 'n bergings-, besinkings- of daaglikse gebruikstenk wat bo die dubbelboom geleë is, moet toegerus wees met 'n kraan of klep wat van buite die betrokke ruimte af beheer kan word ingeval 'n brand uitbreek in die ruimte waarin sulke tenks geleë is. In die spesiale geval van dieptenks in enige as- of pyptonnel moet kleppe aan die tenks aangebring word, maar ingeval van 'n brand kan beheer uitgeoefen word deur middel van 'n bykomende klep in die pyp of leidings buite die tonnel of tonnels.

(j) *Fireman's outfits and personal equipment.*

(i) The ship, whether new or existing, shall carry at least two fireman's outfits complying with the requirements of Regulation 14 of this Chapter. Furthermore, Administrations may require in large ships additional sets of personal equipment and in tankers and special ships such as factory ships additional firemen's outfits.

(ii) For each fireman's outfit which includes a self-contained breathing apparatus as provided in paragraph (b) of Regulation 14 of this Chapter, spare charges shall be carried on a scale approved by the Administration.

(iii) The fireman's outfits and personal equipment shall be stored so as to be easily accessible and ready for use and, where more than one fireman's outfit and set of personal equipment are carried, they shall be stored in widely separated positions.

REGULATION 53

Means of escape

(a) In and from all crew and passenger spaces and spaces in which crew are normally employed, other than machinery spaces, stairways and ladders shall be arranged so as to provide ready means of escape to the lifeboat embarkation deck.

(b) In machinery spaces, two means of escape, one of which may be a watertight door, shall be provided from each engine room, shaft tunnel and boiler room. In machinery spaces, where no watertight door is available, the two means of escape shall be formed by two sets of steel ladders as widely separated as possible leading to doors in the casing similarly separated and from which access is provided to the embarkation deck. In the case of ships of less than 2 000 tons gross tonnage, the Administration may dispense with this requirement, due regard being paid to the width and the disposition of the casing.

REGULATION 54

Special arrangements in machinery spaces

(a) Means shall be provided for stopping ventilating fans serving machinery and cargo spaces and for closing all doorways, ventilators, annular spaces around funnels and other openings to such spaces. These means shall be capable of being operated from outside such spaces in case of fire.

(b) Machinery driving forced and induced draught fans, oil fuel transfer pumps, oil fuel unit pumps and other similar fuel pumps shall be fitted with remote controls situated outside the space concerned so that they may be stopped in the event of a fire arising in the space in which they are located.

(c) Every oil fuel suction pipe from a storage, settling or daily service tank situated above the double bottom shall be fitted with a cock or valve capable of being closed from outside the space concerned in the event of a fire arising in the space in which such tanks are situated. In the special case of deep tanks situated in any shaft or pipe tunnel, valves on the tanks shall be fitted but control in event of fire may be effected by means of an additional valve on the pipeline or lines outside the tunnel or tunnels.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

DEEL E—BRANDVEILIGINGSMAATREËLS VIR TENKSKEPE

REGULASIE 55

Toepassing

(a) Hierdie deel geld vir alle nuwe tenkskepe wat ru-olie en petroleumprodukte vervoer met 'n vlampunt van nie hoër as 60 °C (140 °F) nie (geslote houer-toets) soos vasgestel met 'n goedgekeurde vlampuntapparaat, en waarvan die Reid-dampdruk laer as die lugdruk is, en ander vloeibare produkte van vergelykbare brandgevaar.

(b) Daarby moet alle skepe wat deur hierdie deel gedek word voldoen aan die vereistes van Regulasies 52, 53 en 54 van hierdie Hoofstuk, behalwe dat paragraaf (f) van Regulasie 52 nie hoef te geld vir tenkskepe wat aan Regulasie 60 van hierdie Hoofstuk voldoen nie.

(c) Waar ander vragte as dié waarna in paragraaf (a) van hierdie regulasie verwys word en wat 'n bykomende brandgevaar skep, vervoer gaan word, moet addisionele veiligheidsmaatreëls tot tevredenheid van die Administrasie vereis word.

(d) Gekombineerde draers moet nie soliede vragte vervoer tensy alle vragtenks leeg van olie en vrygestelde gas is, of tensy die Administrasie in elke geval tevrede is met die maatreëls wat getref is nie.

REGULASIE 56

Plasing en skeiding van ruimtes

(a) Masjinerieruimtes van Kategorie A moet agter die vrag- en sloptenks geleë wees en moet van hulle afgeskei wees deur 'n kofferdam, vragpompkamer of oliebrandstofbunkertenk; hulle moet ook agter sulke vragpompkamers en kofferdamme geleë wees, maar nie noodwendig agter die oliebrandstofbunkertenks nie. Die onderste gedeelte van die pompkamer kan egter in sulke ruimtes ingelaat wees om pompe te bevat solank die deksoldering van die inlating oor die algemeen nie meer as een derde van die spante bo die kiel beslaan nie, behalwe dat waar daar in die geval van skepe van meer as 25 000 metrieke ton ladingsgewig getoon kan word dat dit ter wille van toegankelikheid en bevredigende pypinrigtings onprakties is, die Administrasie 'n inlating met 'n groter diepte kan toelaat, maar nie van meer as een helfte van die spante bo die kiel nie.

(b) Akkommodasieruimtes, hoofvragbeheerposte, beheerposte en diensruimtes moet geleë wees agter alle vragtenks, sloptenks, vragpompkamers en kofferdamme wat vrag- of sloptenks van masjinerieruimtes van Kategorie A skei. Enige gewone beskot wat 'n vragpompkamer, insluitende die pompkameringang, van akkommodasie- en diensruimtes en beheerposte skei moet ooreenkomstig Klas "A 60" gebou wees. Waar dit nodig geag word kan akkommodasieruimtes, beheerposte, ander masjinerieruimtes as dié van Kategorie A, en diensruimtes voor alle vragtenks, sloptenks, vragpompkamers en kofferdamme toegelaat word, onderworpe aan 'n ekwivalente veiligheidsstandaard en aan die gepaste beskikbaarheid van brandblusmaatreëls wat tot tevredenheid van die Administrasie voorsien is.

(c) Waar die aanbring van 'n navigasiepos bo die vragtenkgebied nodig blyk te wees, moet dit net vir navigasiedoeleindes afgesonder wees en moet dit van die vragtenkdek geskei wees deur 'n oop ruimte met

PART E—FIRE SAFETY MEASURES FOR TANKERS

REGULATION 55

Application

(a) This Part shall apply to all new tankers carrying crude oil and petroleum products having a flashpoint not exceeding 60 °C (140 °F) (closed cup test) as determined by an approved flashpoint apparatus and whose Reid vapour pressure is below that of atmospheric pressure, and other liquid products having a similar fire hazard.

(b) In addition, all ships covered by this Part shall comply with the requirements of Regulations 52, 53 and 54 of this Chapter, except that paragraph (f) of Regulation 52 need not apply to tankers complying with Regulation 60 of this Chapter.

(c) Where cargoes other than those referred to in paragraph (a) of this regulation which introduce additional fire hazards are intended to be carried, additional safety measures shall be required to the satisfaction of the Administration.

(d) Combination carriers shall not carry solid cargoes unless all cargo tanks are empty of oil and gas freed or unless, in each case, the Administration is satisfied with the arrangements provided.

REGULATION 56

Location and separation of spaces

(a) Machinery spaces of Category A shall be positioned aft of cargo tanks and slop tanks and shall be isolated from them by a cofferdam, cargo pump room or oil fuel bunker tank; they shall also be situated aft of such cargo pump rooms and cofferdams, but not necessarily aft of the oil fuel bunker tanks. However, the lower portion of the pump room may be recessed into such spaces to accommodate pumps provided the deck head of the recess is in general not more than one-third of the moulded depth above the keel except that in the case of ships of not more than 25 000 metric tons deadweight, where it can be demonstrated that for reasons of access and satisfactory piping arrangements this is impracticable, the Administration may permit a recess in excess of such height, but not exceeding one half of the moulded depth above the keel.

(b) Accommodation spaces, main cargo control stations, control stations and service spaces shall be positioned aft of all cargo tanks, slop tanks, cargo pump rooms and cofferdams which isolate cargo or slop tanks from machinery spaces of Category A. Any common bulkhead separating a cargo pump room, including the pump room entrance, from accommodation and service spaces and control stations shall be constructed to "A-60" Class. Where deemed necessary, accommodation spaces, control stations, machinery spaces other than those of Category A and service spaces may be permitted forward of all cargo tanks, slop tanks, cargo pump rooms and cofferdams subject to an equivalent standard of safety and appropriate availability of fire-extinguishing arrangements being provided to the satisfaction of the Administration.

(c) Where the fitting of a navigation position above the cargo tank area is shown to be necessary it shall be for navigation purposes only and it shall be separated from the cargo tank deck by means of an open space

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

'n hoogte van minstens 2 meter. Daarby moet die brandbeveiliging van sodanige navigasiepos voldoen aan die vereistes vir beheerposte soos uiteengesit in paragrawe (a) en (b) van Regulasie 57 en ander bepalings wat op hierdie deel van toepassing is.

(d) Middele moet voorsien word om die dekoorloop van die akkommodasie- en diensruimtes af weg te hou. Dit kan bewerkstellig word deur die aanbring van 'n permanente deurlopende luikhoof van geskikte hoogte wat van kant tot kant strek. Spesiale aandag moet geskenk word aan die reëlings betreffende agterstewe-inskeping.

(e) Die buitegrense van die bobou en dekhuise wat akkommodasie- en diensruimtes omsluit en insluitende enige oorhangende dekke met sodanige akkommodasie op, moet ooreenkomstig Klas "A 60" geïsoleer wees oor die geheel van die dele teenoor olievragtenks en vir 3 meter agtertoe vanaf die voorste grens. Betreffende die sykante van hierdie bobou en dekhuise, moet sodanige isolering so hoog strek as wat die Administrasie nodig ag.

(f) Die volgende bepalings geld vir die bobou en dekhuise wat akkommodasie- en diensruimtes bevat, se grense teenoor vragtenks:

(i) Geen deure moet in sulke grense toegelaat word nie, behalwe dat die Administrasie deure kan toelaat na dié ruimtes wat nie toegang tot akkommodasie- en diensruimtes het nie, soos vragbeheerposte, voorraadkamers en pakkamers. Waar sulke deure aangebring word, moet die ruimte se grense ooreenkomstig Klas "A 60" geïsoleer wees. Vasgeboute plate vir die verwydering van masjinerie kan in sulke grense aangebring word.

(ii) Ligpoorte in sulke grense moet van die vaste (nie-oopmaakbare) soort wees. Loodshuisvensters kan beweeglik (oopmaakbaar) wees.

(iii) Ligpoorte in die eerste verdieping van die hoofdek moet binne toegerus wees met deksels van staal of ekwivalente materiaal.

Waar dit van toepassing is, behalwe in die geval van toegang tot die navigasiebrugruimtes, moet die vereistes van hierdie paragraaf ook geld vir die grense van die bobou en dekhuise oor 'n afstand van 5 meter oorlangs gemeet vanaf die voorkant van sulke strukture.

REGULASIE 57

Bouwerk

(a) (i) Die romp, bobou, strukturele beskotte, dekke en dekhuise moet van staal of ander ekwivalente materiaal gemaak wees.

(ii) Beskotte tussen vragpompkamers, insluitende hulle kokers en masjinerieruimtes van Kategorie A, moet van Klas "A" wees en moet geen penetrasies van minder as Klas "A-0" of die ekwivalent daarvan in alle opsigte, hê nie, behalwe die vragpomp-asdrukstukke en soortgelyk afgedigte penetrasies.

(iii) Beskotte en dekke wat verdelings vorm wat masjinerieruimtes van Kategorie A en vragpompkamers, insluitende hulle kokers, onderskeidelik, skei van akkommodasie- en diensruimtes, moet van Klas "A-60" wees. Sulke beskotte en dekke en enige grense van masjinerieruimtes van Kategorie A en vragpompkamers moet nie deurdring word vir venters of ligpoorte nie.

(iv) Die vereistes van subparagrawe (ii) en (iii) van hierdie paragraaf sluit egter nie die installering van permanente, goedgekeurde gasdigte beligtingsomsluitings vir die beligting van die pompkamers uit nie,

with a height of at least 2 metres. The fire protection of such navigation position shall in addition be as required for control spaces as set forth in paragraphs (a) and (b) of Regulation 57 and other provisions as applicable of this Part.

(d) Means shall be provided to keep deck spills away from the accommodation and service areas. This may be accomplished by provision of a permanent continuous coaming of a suitable height extending from side to side. Special consideration shall be given to the arrangements associated with stern loading.

(e) Exterior boundaries of superstructures and deckhouses enclosing accommodation and service spaces and including any overhanging decks which support such accommodation, shall be insulated to "A-60" Class for the whole of the portions which face cargo oil tanks and for 3 metres aft of the front boundary. In the case of the sides of these superstructures and deckhouses, such insulation shall be carried as high as is deemed necessary by the Administration.

(f) In boundaries, facing cargo tanks, of superstructures and deckhouses containing accommodation and service spaces the following provisions shall apply:

(i) No doors shall be permitted in such boundaries, except that doors to those spaces not having access to accommodation and service spaces, such as cargo control stations, provision rooms, and store-rooms may be permitted by the Administration. Where such doors are fitted, the boundaries of the space shall be insulated to "A-60" Class. Bolted plates for removal of machinery may be fitted in such boundaries.

(ii) Portlights in such boundaries shall be of a fixed (non-opening) type. Pilot house windows may be non-fixed (opening).

(iii) Portlights in the first tier on the main deck shall be fitted with inside covers of steel or equivalent material.

The requirements of this paragraph, where applicable, except in the case of access to the navigating bridge spaces, shall also be applied to the boundaries of the superstructures and deckhouses for a distance of 5 metres measured longitudinally from the forward end of such structures.

REGULATION 57

Construction

(a) (i) The hull, superstructure, structural bulkheads, decks and deckhouses shall be constructed of steel or other equivalent material.

(ii) Bulkheads between cargo pump rooms, including their trunks and machinery spaces of Category A shall be "A" Class and shall have no penetrations which are less than "A-0" Class or equivalent in all respects, other than the cargo pump shaft glands and similar glanded penetrations.

(iii) Bulkheads and decks forming divisions separating machinery spaces of Category A and cargo pump rooms, including their trunks, respectively, from the accommodation and service spaces shall be of "A-60" Class. Such bulkheads and decks and any boundaries of machinery spaces of Category A and cargo pump rooms shall not be pierced for windows or portlights.

(iv) The requirements of subparagraphs (ii) and (iii) of this paragraph, however, do not preclude the installation of permanent approved gas-tight lighting enclosures for illuminating the pump rooms provided that

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

solank hulle sterk genoeg is en die integriteit en gasdigtheid van die beskot as Klas "A" handhaaf. Verder sluit dit ook nie die gebruik van vensters uit in 'n beheerpos wat geheel en al binne 'n masjinerieruimte geleë is nie.

(v) Beheerposte moet deur Klas "A"-beskotte en -dekke geskei word van aangrensende omslote ruimtes. Die isolering van hierdie beheerposgrense moet tot tevredenheid van die Administrasie wees met inagneming van die brandrisiko in aangrensende ruimtes.

(vi) Hulseldeure in masjinerieruimtes van Kategorie A moet selfsluitend wees en voldoen aan die ter sake bepalings van subparagraaf (b) (vii) van hierdie Regulasie.

(vii) Die oppervlakte van die isolering aan die binnegrense van masjinerieruimtes van Kategorie A moet dig wees teen olie en oliedampe.

(viii) Primêre dekbedekkings, as daar aangebring is, moet van goedgekeurde materiaal wees wat nie maklik sal ontbrand nie*.

(ix) Binnetrappe moet van staal of ander geskikte materiaal gemaak wees.

(x) Wanneer hulle aan akkommodasieruimtes grens, moet die beskotte van skeepskombuise, verfkamers, lampkamers en bootsmanpakkamers van staal of 'n ekwivalente materiaal wees.

(xi) Verf, vernis en ander afwerkings aan blootgestelde binneoppervlaktes moet nie van 'n aard wees wat na die Administrasie se mening 'n oormatige brandgevaar skep nie en moet nie oormatige hoeveelhede rook of ander gifstowwe kan afgee nie.

(xii) Pype wat olie of brandbare vloeistowwe vervoer, moet van materiaal wees wat die Administrasie goedgekeur het met inagneming van die brandgevaar. Stowwe wat maklik deur hitte ondoeltreffend gelaat word, moet nie gebruik word vir oorboordse spuigate, sanitêre uitlate en ander uitlate wat naby die waterlyn is en waar die onklaarraking van die materiaal ingeval van 'n brand 'n oorstromingsgevaar skep nie.

(xiii) Kragventilering in masjinerieruimtes moet tot stilstand gebring kan word vanaf 'n maklik toeganklike plek buite die masjinerieruimtes.

(xiv) Dakvensters van masjinerieruimtes van Kategorie A en vragpompkamers moet voldoen aan die bepalings van subparagraaf (a) (iii) van hierdie paragraaf in verband met vensters en ligpoorte, en moet verder so ingerig wees dat hulle maklik toegemaak kan word van buite die ruimtes wat hulle bedien.

(b) Binne die akkommodasie- en diensruimtes en beheerposte geld die volgende bepalings:

(i) Gangbeskotte, insluitende deure, moet van Klas "A"- of "B"-verdelings wees wat van dek tot dek strek. Waar deurlopende Klas "B"-plafonne en/of bekledings aan beide kante van die beskot aangebring is, kan die beskot doodloop teen die deurlopende plafon of bekleding. Die deure van kajuite en openbare ruimtes in sulke beskotte kan hortjies in die onderste helfte hê.

(ii) Lugruimtes wat agter plafonne, panele of bekledings ingesluit word, moet verdeel wees deur styfpassende lugstroomstuiters hoogstens 14 meter uitmekaar.

(iii) Plafonne, bekledings, beskotte en isolering, behalwe isolering in verkoelde kompartemente, moet van onbrandbare materiaal wees. Voglae en kleefmiddels wat in verband met isolering gebruik word sowel as die isolering van pyptoebehore vir verkoelingsdiensstelsels

* Hier word verwys na die *Improved Provisional Guidelines on Test Procedures for Primary Deck Coverings*, soos deur die Organisasie aangeneem by Resolusie A. 214 (VII).

they are of adequate strength and maintain the integrity and gas-tightness of the bulkhead as "A" Class. Further, it does not preclude the use of windows in a control room located entirely within a machinery space.

(v) Control stations shall be separated from adjacent enclosed spaces by means of "A" Class bulkheads and decks. The insulation of these control station boundaries shall be to the satisfaction of the Administration having in mind the risk of fire in adjacent spaces.

(vi) Casing doors in machinery spaces of Category A shall be selfclosing and comply with the related provisions of sub-paragraph (b) (vii) of this Regulation.

(vii) The surface of the insulation on interior boundaries of machinery spaces of Category A shall be impervious to oil and oil vapours.

(viii) Primary deck coverings, if applied, shall be of approved materials which will not readily ignite.*

(ix) Interior stairways shall be of steel or other suitable material.

(x) When adjacent to accommodation spaces, bulkheads of galleys, paint stores, lamp rooms and boatswain's stores shall be of steel or equivalent material.

(xi) Paints, varnishes and other finishes used on exposed interior surfaces shall not be of a nature to offer an undue fire hazard in the judgement of the Administration and shall not be capable of producing excessive quantities of smoke or other toxic properties.

(xii) Pipes conveying oil or combustible liquids shall be of a material approved by the Administration having regard to the fire risk. Materials readily rendered ineffective by heat shall not be used for overboard scuppers, sanitary discharges, and other outlets which are close to the water-line and where the failure of the material in the event of fire would give rise to danger of flooding.

(xiii) Power ventilation of machinery spaces shall be capable of being stopped from an easily accessible position outside the machinery spaces.

(xiv) Skylights to machinery spaces of Category A and cargo pump rooms shall comply with the provisions of sub-paragraph (a) (iii) of this Regulation in respect of windows and portlights and in addition shall be so arranged as to be capable of being readily closed from outside the spaces which they serve.

(b) Within the accommodation and service spaces and control stations the following conditions shall apply:

(i) Corridor bulkheads including doors shall be of "A" or "B" Class divisions extending from deck to deck. Where continuous "B" Class ceilings and/or linings are fitted on both sides of the bulkhead, the bulkhead may terminate at the continuous ceiling or lining. Doors of cabins and public spaces in such bulkheads may have louvre in the lower half.

(ii) Air spaces enclosed behind ceilings, panellings, or linings shall be divided by close fitting draught stops spaced not more than 14 metres apart.

(iii) Ceilings, linings, bulkheads and insulation except for insulation in refrigerated compartments shall be of non-combustible material. Vapour barriers and adhesives used in conjunction with insulation, as well as insulation of pipe fittings for cold service systems

* Reference is made to Improved Provisional Guidelines on Test Procedures for Primary Deck Coverings, adopted by the Organization by Resolution A.214 (VII).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

hoef nie onbrandbaar te wees nie, maar moet tot die kleinste moontlike hoeveelheid beperk word, en hulle blootgestelde oppervlaktes moet tot tevredenheid van die Administrasie weerstand bied teen die verspreiding van vlamme.

(iv) Die omlysting, insluitende die vloerhegstukke en lasstukke van beskotte, die bekledings, plafonne en lugstroomstuiters, as daar is, moet van onbrandbare materiaal wees.

(v) Alles blootgestelde oppervlaktes in gange en trapomsluitings en oppervlaktes in bedekte of ontoeganklike ruimtes moet lae vlamverspreidingseienskappe hê.*

(vi) Beskotte, bekledings en plafonne kan brandbare fineer hê, solank sodanige fineer nie dikker as twee millimeter binne enige sodanige ruimte is nie, behalwe gange, waar dit nie 1,5 millimeter moet oorskry nie.

(vii) Trappe wat net 'n enkele dek deurdring, moet op minstens een vlak beskerm word deur Klas "A"- of "B"-verdelings en selfsluitende deure ten einde die vinnige brandverspreiding van een dek na 'n ander te beperk. Bemanningshyserskagte moet van Klas "A"-verdelings wees. Trappe en hyserskagte wat meer as een dek deurdring moet deur Klas "A"-verdelings omring en deur selfsluitende staaldeure beskerm word op alle vlakke. Selfsluitdeure moet die toegerus wees met vashouerhake nie. Terughou-inrigtings toegerus met afstandbeheerde faalvrye loslatingsmeganismes kan egter gebruik word.

(c) Ventileringskanale vir masjinerieruimtes van Kategorie A moet normaalweg nie deur akkommodasie- en diensruimtes of beheerposte loop nie, behalwe dat die Administrasie 'n verslapping van hierdie vereiste kan toelaat op voorwaarde dat—

(i) die kanale van staal gemaak en ooreenkomstig Klas "A-60" geïsoleer is; of dat

(ii) die kanale van staal gemaak en digby die deurdronge grens van 'n outomatiese branddemper voorsien is en ooreenkomstig Klas "A-60" geïsoleer is vanaf die masjinerieruimte van Kategorie A tot by 'n punt minstens vyf meter verby die branddemper.

(d) Ventileringskanale vir akkommodasie- en diensruimtes of beheerposte moet normaalweg nie deur masjinerieruimtes van Kategorie A loop nie, behalwe dat die Administrasie 'n verslapping van hierdie vereiste kan toelaat op voorwaarde dat die kanale van staal is en van 'n outomatiese branddemper digby die deurdronge grense voorsien is.

REGULASIE 58

Ventilering

(a) Die inrigting en plasing in die vragtenkdek van openinge waaruit gasvrylating kan voorkom, moet sodanig wees dat dit die moontlikheid minimaliseer dat gas ingevoer kan word in omslote ruimtes wat 'n ontstekingsbron bevat, of kan versamel in die omgewing van dekmasjinerie en toerusting wat 'n ontbrandingsgevaar kan skep. In elke geval moet die hoogte van die uitlaat bo die dek en die ontlastingsnelheid van die gas binne verband oorweeg word met die afstand van enige uitlaat van enige dekhuisopening of ontstekingsbron af.

(b) Die rangskikking van ventilasie-inlate en -uitlate en ander dekhuis- en bobougrens-ruimteopeninge moet sodanig wees dat dit die bepalings van paragraaf (a)

* Hier word verwys na die *Guidelines on the Evaluation of Fire Hazard Properties of Materials*, soos deur die Organisasie aangeneem by Resolusie A.166 (ES. IV).

need not be non-combustible, but they shall be kept to the minimum quantity practicable and their exposed surfaces shall have resistance to propagation of flame to the satisfaction of the Administration.

(iv) The framing, including grounds and the joint pieces of bulkheads, linings, ceilings and draught stops, if fitted, shall be of non-combustible material.

(v) All exposed surfaces in corridors and stairway enclosures and surfaces in concealed or inaccessible spaces shall have low flame-spread characteristics.*

(vi) Bulkheads, linings and ceilings may have combustible veneer, provided that such veneer shall not exceed 2 millimetres within any such space except corridors, stairway enclosures and control stations where it shall not exceed 1,5 millimetres.

(vii) Stairways which penetrate only a single deck shall be protected at least at one level by "A" or "B" Class divisions and self-closing doors so as to limit the rapid spread of fire from one deck to another. Crew lift trunks shall be of "A" Class divisions. Stairways and lift trunks which penetrate more than a single deck shall be surrounded by "A" Class divisions and protected by self-closing steel doors at all levels. Self-closing doors shall not be fitted with hold-back hooks. However, hold-back arrangements fitted with remote release fittings of the fail-safe type may be utilized.

(c) Ducts provided for ventilation of machinery spaces of Category "A" shall not in general pass through accommodation and service spaces or control stations, except that the Administration may permit relaxation from this requirement provided that—

(i) the ducts are constructed of steel and each is insulated to "A-60" Class; or

(ii) the ducts are constructed of steel and are fitted with an automatic fire damper close to the boundary penetrated and are insulated to "A-60" Class from the machinery space of Category A to a point at least 5 metres beyond the fire damper.

(d) Ducts provided for ventilation of accommodation and service spaces or control stations shall not in general pass through machinery spaces of Category A except that the Administration may permit relaxation from this requirement provided that ducts are constructed of steel and an automatic fire damper is fitted close to the boundaries penetrated.

REGULATION 58

Ventilation

(a) The arrangement and positioning of openings in the cargo tank deck from which gas emission can occur shall be such as to minimize the possibility of gas being admitted to enclosed spaces containing a source of ignition, or collecting in the vicinity of deck machinery and equipment which may constitute an ignition hazard. In every case the height of the outlet above the deck and the discharge velocity of the gas shall be considered in conjunction with the distance of any outlet from any deckhouse opening or source of ignition.

(b) The arrangement of ventilation inlets and outlets and other deckhouse and superstructure boundary space openings shall be such as to complement the

* Reference is made to Guidelines on the Evaluation of Fire Hazard Properties of Materials, adopted by the Organization by Resolution A.166 (ES. IV).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

van hierdie Regulasie aanvul. Sulke on lugters, en veral dié van masjinerieruimtes, moet so ver agtertoe geplaas word as wat prakties moontlik is. Die nodige aandag moet in dié verband geskenk word waar die skip toegerus is om van agter af gelaai of afgelaai te word. Ontstekingsbronne soos elektriese toerusting moet só geplaas word dat dit nie 'n ontploffingsgevaar skep nie.

(c) Vragpompkamers moet meganies geventileer word en afvoere vanaf die uitlaatwaaiers moet na 'n veilige plek op die oop dek gelei word. Die ventileringskapasiteit van hierdie vertrekke moet voldoende wees om die moontlikheid van die versameling van ontvlambare gasse te minimaliseer. Die getal lugverwisselings moet minstens 20 per uur wees, gegrond op die bruto volume van die ruimte. Die luggange moet so gerangskik wees dat die hele ruimte doeltreffend geventileer word. Dit moet 'n suig-tipe ventilering wees.

REGULASIE 59

Nooduitgange

Benewens die vereistes van paragraaf (a) van regulasie 53 van hierdie Hoofstuk moet die Administrasie aandag skenk aan die beskikbaarheid van nooduitgange vir die personeel vanuit elke kajuit.

REGULASIE 60

Vragtenkbeveiliging

(a) Vir tenkskepe van 100 000 metrieke ton ladingsgewig en groter en vir kombinasiedraers van 50 000 metrieke ton ladingsgewig en groter moet die beveiliging van die vragtenkdekgebied en die vragtenks bewerkstellig word deur 'n vaste dekskuimstelsel en 'n vaste trae gas-stelsel ooreenkomstig die vereistes van Regulasies 61 en 62 van hierdie deel, behalwe dat die Administrasie, na inagneming van die skip se inrigting en toerusting, ander kombinasies van vaste installasies kan aanvaar indien hulle beskerming ekwivalent aan die bogenoemde verleen, in ooreenstemming met Regulasie 5 van Hoofstuk I van hierdie Konvensie.

(b) Om as ekwivalent deur te gaan moet die stelsel wat in die plek van die dekskuimstelsel voorgestel word—

(i) in staat wees om oorloopbrande te blus en ook die ontbranding te voorkom van oorgeloopte olie wat nog nie ontvlam het nie; en

(ii) in staat wees om brande in gebarste tenks te bestry.

(c) Om as ekwivalent deur te gaan moet die stelsel wat in die plek van die vaste trae gas-stelsel voorgestel word—

(i) in staat wees om gevaarlike versamelings plofbare mengsels in heel vragtenks te voorkom tydens normale diens dwarsdeur die reis sonder vrag en die nodige binnetenkse operasies; en

(ii) so ontwerp wees dat dit die risiko van ontsteking deur statiese elektrisiteit wat die stelsel self opwek tot die minimum beperk.

(d) By tenkskepe van kleiner as 100 000 metrieke ton ladingsgewig en kombinasiedraers van kleiner as 50 000 metrieke ton ladingsgewig kan die Administrasie by die toepassing van die vereistes van paragraaf (f) van Regulasie 52 van hierdie Hoofstuk 'n skuimstelsel aanvaar wat in staat is om skuim binne of buite die tenks vry te stel. Die besonderhede van so 'n stelsel moet die Administrasie se goedkeuring wegdra.

provisions of paragraph (a) of this Regulation. Such vents especially for machinery spaces shall be situated as far aft as practicable. Due consideration in this regard should be given when the ship is equipped to load or discharge at the stern. Sources of ignition such as electrical equipment shall be so arranged as to avoid an explosion hazard.

(c) Cargo pump rooms shall be mechanically ventilated and discharges from the exhaust fans shall be led to a safe place on the open deck. The ventilation of these rooms shall have sufficient capacity to minimize the possibility of accumulation of inflammable vapours. The number of changes of air shall be at least 20 times per hour, based upon the gross volume of the space. The air ducts shall be arranged so that all of the space is effectively ventilated. The ventilation shall be of the suction type.

REGULATION 59

Means of escape

In addition to the requirements of paragraph (a) of Regulation 53 of this Chapter, consideration shall be given by the Administration to the availability of emergency means of escape for personnel from each cabin.

REGULATION 60

Cargo tank protection

(a) For tankers of 100 000 metric tons deadweight and upwards and combination carriers of 50 000 metric tons deadweight and upwards, the protection of the cargo tanks deck area and cargo tanks shall be achieved by a fixed deck froth system and a fixed inert gas system in accordance with the requirements of Regulations 61 and 62 of this Part except that in lieu of the above installations the Administration, after having given consideration to the ship arrangement and equipment, may accept other combinations of fixed installations if they afford protection equivalent to the above, in accordance with Regulation 5 of Chapter I of this Convention.

(b) To be considered equivalent, the system proposed in lieu of the deck froth system shall—

(i) be capable of extinguishing spill fires and also preclude ignition of spilled oil not yet ignited; and

(ii) be capable of combating fires in ruptured tanks.

(c) To be considered equivalent, the system proposed in lieu of the fixed inert gas system shall—

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

(ii) be so designed as to minimize the risk of ignition from the generation of static electricity by the system itself.

(d) In tankers of less than 100 000 metric tons deadweight and combination carriers of less than 50 000 metric tons deadweight the Administration, in applying the requirements of paragraph (f) of Regulation 52 of this Chapter, may accept a froth system, capable of discharging froth internally or externally, to the tanks. The details of such installation shall be to the satisfaction of the Administration.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 61

Vaste dekskuimstelsel

Die vaste dekskuimstelsel waarna daar in paragraaf (a) van Regulasie 60 van hierdie Hoofstuk verwys is, moet soos volg ontwerp wees:

(a) Die inrigtings vir die voorsiening van skuim moet in staat wees om skuim te lewer oor die hele vragtenkgebied asook binne enige vragtenk waarvan die dek oopgeskeur is.

(b) Die stelsel moet in staat wees tot eenvoudige en vinnige werking. Die hoofbeheerpos vir die stelsel moet gepas buite die vragtenkgebied geleë wees langs die akkommodasieruimtes en maklik toeganklik en opereerbaar ingeval van brand in die beskermde gebiede.

(c) Die leweringstempo van die skuimoplossing moet nie laer as die hoogste van die volgende wees nie:

(i) 0,6 liter per minuut per vierkante meter van die vragdekoppervlakte, waar vragdekoppervlakte beteken die maksimum breedte van die skip maal die totale lengtestrekking van die vragtenkruimtes; of

(ii) 6 liter per minuut per vierkante meter van die horisontale seksieoppervlakte van die enkele tenk met die grootste sodanige oppervlakte.

Genoeg skuimkonsentraat moet verskaf word om 'n skuimlewering van minstens 20 minute te lewer wanneer die oplossingstempo gebruik word soos in subparagraaf (i) of (ii) van hierdie paragraaf gestipuleer, watter een ook al die hoogste is. Die skuimuitsettingsverhouding (d.i. die verhouding van die volume skuim wat gelewer word tot die volume van die mengsel water en skuimkonsentraat wat voorsien is) moet normaalweg nie 12 tot 1 oorskry nie. Waar stelsels wesenlik lae uitsettingskuim lewer, maar teen 'n uiteensettingsverhouding van effens hoër as 12 tot 1, moet die beskikbare hoeveelheid skuimmiddel bereken word soos vir die 12 tot 1-uitsetting verhoudingstelsels. Wanneer skuim van 'n middelmatige uitsettingsverhouding (tussen 50 tot 1- en 150 tot 1-uitsettingsverhouding) gebruik word, moet die leweringstempo van die skuim en die kapasiteit van 'n monitorinstallasie die Administrasie se goedkeuring wegdra.

(d) Skuim van die vaste skuimstelsel af moet gelewer word deur middel van monitors en skuimaanwenders. Minstens 50 persent van die vereiste skuimtempo moet vanaf elke monitor gelewer word.

(e) (i) Die getal en plasing van die monitors moet sodanig wees dat dit voldoen aan paragraaf (a) van hierdie regulasie. Die kapasiteit van elke monitor in liter per minuut skuimoplossing moet minstens drie maal die dekoppervlakte in vierkante meter wees wat deur daardie monitor beskerm word, met sodanige oppervlakte geheel en al aan die voorkant van die monitor.

(ii) Die afstand van die monitor af na die verste uithoek van die beskermde gebied voor daardie monitor moet nie meer as 75 persent van die monitor se spuitafstand in stil lugtoestande wees nie.

(f) 'n Monitor- en slangkoppeling vir 'n skuimaanwender moet aan beide bak- en stuurboordkant by die agterstewefront of akkommodasieruimtes teenoor die vragdek geleë wees. Aanwenders moet voorsien word vir plooibaarheid van optrede tydens brandbestrydingsoperasies en om terreine te dek wat van die monitors verberg is.

(g) Direk aan die voorkant van elke monitorposisie moet daar kleppe in beide die skuimtoevoer- en die brandtoevoerpype aangebring word om beskadigde gedeeltes van hierdie toevoerpype af te sluit.

REGULATION 61

Fixed deck froth system

The fixed deck froth system referred to in paragraph (a) of Regulation 60 of this Chapter shall be designed as follows:

(a) The arrangements for providing froth shall be capable of delivering froth to the entire cargo tank area as well as into any cargo tank, the deck of which has been ruptured.

(b) The system shall be capable of simple and rapid operation. The main control station for the system shall be suitably located outside of the cargo tank area, adjacent to the accommodation spaces and readily accessible and operable in the event of fire in the areas protected.

(c) The rate of supply of froth solution shall be not less than the greater of the following:

(i) 0,6 litres per minute per square metre of the cargo deck area, where cargo deck area means the maximum breadth of the ship times the total longitudinal extent of the cargo tank spaces, or

(ii) 6 litres per minute per square metre of the horizontal sectional area of the single tank having the largest such area.

Sufficient froth concentrate shall be supplied to ensure at least 20 minutes of froth generation when using solution rates stipulated in subparagraph (i) or (ii) of this paragraph, whichever is the greater. The froth expansion ratio (i.e. the ratio of the volume of froth produced to the volume of the mixture of water and frothmaking concentrate supplied) shall not generally exceed 12 to 1. Where systems essentially produce low expansion froth but at an expansion ratio slightly in excess of 12 to 1, the quantity of froth solution available shall be calculated as for 12 to 1 expansion ratio systems. When medium expansion ratio froth (between 50 to 1 and 150 to 1 expansion ratio) is employed the application rate of the froth and the capacity of a monitor installation shall be to the satisfaction of the Administration.

(d) Froth from the fixed froth system shall be supplied by means of monitors and froth applicators. At least 50 per cent of the required froth rate shall be delivered from each monitor.

(e) (i) The number and position of monitors shall be such as to comply with paragraph (a) of this Regulation. The capacity of any monitor in litres per minute of froth solution shall be at least three times the deck area in square metres protected by that monitor, such area being entirely forward of the monitor.

(ii) The distance from the monitor to the farthest extremity of the protected area forward of that monitor shall not be more than 75 per cent of the monitor throw in still air conditions.

(f) A monitor and hose connection for a froth applicator shall be situated both port and starboard at the poop front or accommodation spaces facing the cargo deck. Applicators shall be provided for flexibility of action during fire-fighting operations and to cover areas screened from the monitors.

(g) Valves shall be provided in both the froth main and the fire main immediately forward of every monitor position to isolate damaged sections of these mains.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(h) Die gebruik van dekskuimstelsel teen sy vereiste lewering moet die gelyktydige gebruik toelaat van die minimum getal vereiste strale water teen die vereiste druk vanuit die hoofbrandtoevoerpyp.

REGULASIE 62

Trae gas-stelsel

Die trae gas-stelsel waarna verwys word in paragraaf (a) van Regulasie 60 van hierdie Hoofstuk moet in staat wees om wanneer die behoefte daar is, na die vragtenks toe gas of 'n mengsel gasse te lewer wat só gebrekkig aan suurstof is dat dit die atmosfeer binne 'n tenk traag laat, dit is, nie in staat tot vlamverspreiding nie. So 'n stelsel moet aan die volgende vereistes voldoen:

(a) Die nodigheid vir vars lug om 'n tenk binne te gaan tydens normale operasies moet uitgeskakel word, behalwe wanneer 'n tenk vir die toelating van personeel voorberei word.

(b) Leë tenks moet met trae gas gesuiwer kan word om die koolstofwaterstofinhoud van 'n tenk te verminder ná die ontskeping van die vrag.

(c) Die skoonspoel van die tenks moet binne 'n trae atmosfeer gedoen kan word.

(d) Tydens vragontskeping moet die stelsel sodanig wees dat dit sal verseker dat die volume gas waarna in paragraaf (f) van hierdie Regulasie verwys word, beskikbaar is. Op ander tye moet daar deurlopend genoeg gas beskikbaar wees om te voldoen aan paragraaf (g) van hierdie Regulasie.

(e) Paslike middele moet voorsien word om die tenks met vars lug sowel as met trae gas te suiwer.

(f) Die stelsel moet in staat wees om trae gas te lewer teen 'n tempo van minstens 125 persent van die maksimum ontwerpvermoë van die vragpompe.

(g) In gewone bedryfstoestande wanneer die tenks met trae gas gevul word of gevul is, moet dit moontlik wees om 'n positiewe druk by die tenk te handhaaf.

(h) Uitlate vir afgewerkte lug by suiwering moet doelmatig in die ope lug geplaas wees en moet oor die algemeen aan dieselfde vereistes voldoen as wat voorgeskryf is vir die ventileringsuitlate van tenks in paragraaf (a) van Regulasie 58 van hierdie Hoofstuk.

(i) 'n Gassuiweringstoestel moet voorsien word wat doeltreffend die gas verkoel en vaste stowwe en swaelverbrandingsprodukte verwyder.

(j) Minstens twee waaiers (blasers) moet voorsien word wat tesame minstens die hoeveelheid gas kan lewer wat in paragraaf (f) van hierdie Regulasie gestipuleer word.

(k) Die suurstofinhoud van die trae gas-lewering moet normaalweg nie 5 persent van die volume oorskry nie.

(l) Middele moet voorsien word wat verhoed dat koolwaterstofgasse of -dampe teruggevoer word vanaf die tenks na die masjinieruimtes en opneempype en wat die ontstaan van 'n oormatige druk of vakuum voorkom. Daarbenewens moet daar 'n doeltreffende watersluis by die gassuiweringstoestel of op die dek geïnstalleer word. Takpype vir trae gas moet by elke tenk toegerus wees met sluitkleppe of ekwivalente kontrolemiddels. Die stelsel moet ontwerp wees om die gevaar van ontsteking deur die opwekking van statiese elektrisiteit tot die minimum te beperk.

(h) Operation of a deck froth system at its required output shall permit the simultaneous use of the minimum required number of jets of water at the required pressure from the fire main.

REGULATION 62

Inert gas system

The inert gas system referred to in paragraph (a) of Regulation 60 of this Chapter shall be capable of providing on demand a gas or mixture of gases to the cargo tanks so deficient in oxygen that the atmosphere within a tank may be rendered inert, i.e. incapable of propagating flame. Such a system shall satisfy the following conditions:

(a) The need for fresh air to enter a tank during normal operations shall be eliminated, except when preparing a tank for entry by personnel.

(b) Empty tanks shall be capable of being purged with inert gas to reduce the hydrocarbon content of a tank after discharge of cargo.

(c) The washing of tanks shall be capable of being carried out in an inert atmosphere.

(d) During cargo discharge, the system shall be such as to ensure that the volume of gas referred to in paragraph (f) of this Regulation is available. At other times sufficient gas to ensure compliance with paragraph (g) of this Regulation shall be continuously available.

(e) Suitable means for purging the tanks with fresh air as well as with inert gas shall be provided.

(f) The system shall be capable of supplying inert gas at a rate of at least 125 per cent of the maximum rated capacity of the cargo pumps.

(g) Under normal running conditions, when tanks are being filled or have been filled with inert gas, a positive pressure shall be capable of being maintained at the tank.

(h) Exhaust gas outlets for purging shall be suitably located in the open air and shall be to the same general requirements as prescribed for ventilating outlets of tanks, referred to in paragraph (a) of Regulation 58 of this Chapter.

(i) A scrubber shall be provided which will effectively cool the gas and remove solids and sulphur combustion products.

(j) At least two fans (blowers) shall be provided which together shall be capable of delivering at least the amount of gas stipulated in paragraph (f) of this Regulation.

(k) The oxygen content in the inert gas supply shall not normally exceed 5 per cent by volume.

(l) Means shall be provided to prevent the return of hydrocarbon gases or vapours from the tanks to the machinery spaces and uptakes and prevent the development of excessive pressure or vacuum. In addition, an effective water lock shall be installed at the scrubber or on deck. Branch piping for inert gas shall be fitted with stop valves or equivalent means of control at every tank. The system shall be so designed as to minimize the risk of ignition from the generation of static electricity.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(m) Instrumenta ie moet aangebring word wat te alle tye wanneer trae gas gelewer word, die druk en suurstofinhoud van die gas in die trae gas-toevoerpyp aan die leweringskant van die waaier deurlopend aandui en permanent aanteken. Sulke instrumente moet verkieslik in die vragbeheerpos geplaas wees as daar een is, maar moet in elk geval maklik toeganklik wees vir die offisier in beheer van vragoperasies. Geskikte draagbare instrumente vir die meting van suurstof- en koolwaterstofgasse en -dampe en die nodige tenkinstallasies moet voorsien word om die tenkinhoud te monitor.

(n) Middele moet voorsien word vir die aanduiding van die temperatuur en druk van die trae gas-toevoerpyp.

(o) Alarms moet voorsien word wat die volgende aandui:

(i) hoë suurstofinhoud van die gas in die trae gas-toevoerpyp;

(ii) lae gasdruk in die trae gas-toevoerpyp;

(iii) lae druk in die toevoer na die dekwaterslot indien sulke toerusting aangebring is;

(iv) hoë temperatuur van die gas in die trae gas-toevoerpyp; en

(v) lae waterdruk na die gassuiweringstoestel toe en outomatiese afsluitings van die stelsel moet gereël wees vir wanneer voorafbepaalde perke ten opsigte van subparagrawe (iii), (iv) en (v) van hierdie paragraaf bereik word.

(p) Die gesagvoerder van elke skip wat met 'n trae gas-stelsel toegerus is, moet voorsien word van 'n instruksiehandboek wat die operasionele, veiligheids- en beroepsgesondheidsvereistes dek wat met die stelsel verband hou.

REGULASIE 63

Vragpompkamer

Elke vragpompkamer moet voorsien wees van 'n vaste brandbestrydingstelsel wat beheer word vanaf 'n maklik toeganklike posisie buite die pompkamer. Die stelsel moet sproeiwater gebruik of enige ander geskikte medium wat die Administrasie goedkeur.

REGULASIE 64

Slangspuitstukke

Alle voorsiene waterslangspuitstukke moet van 'n goedgekeurde dubbeldoelsoort (d.i. sproei/straal-tipe) wees wat 'n afsluitklep insluit.

DEEL F — SPESIALE BRANDBEVEILIGINGSMAATREËLS VIR BESTAANDE PASSASIERSKEPE

[Vir doeleindes van hierdie deel van hierdie Hoofstuk beteken alle verwysings na Regulasie . . . (1948) verwysings na Regulasies van Hoofstuk II van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1948, en alle verwysings na Regulasie . . . (1960) beteken, tensy daar anders gemeld word, verwysings na Regulasies van Hoofstuk II van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960.]

(m) Instrumentation shall be fitted for continuously indicating and permanently recording at all times when inert gas is being supplied the pressure and oxygen content of the gas in the inert gas supply main on the discharge side of the fan. Such instrumentation should preferably be placed in the cargo control room if fitted but in any case shall be easily accessible to the officer in charge of cargo operations. Portable instruments suitable for measuring oxygen and hydrocarbon gases or vapour and the necessary tank fittings shall be provided for monitoring the tank contents.

(n) Means for indicating the temperature and pressure of the inert gas main shall be provided.

(o) Alarms shall be provided to indicate—

(i) high oxygen content of gas in the inert gas main;

(ii) low gas pressure in the inert gas main;

(iii) low pressure in the supply to the deck water seal, if such equipment is installed;

(iv) high temperature of gas in the inert gas main; and

(v) low water pressure to the scrubber;

and automatic shut-downs of the system shall be arranged on predetermined limits being reached in respect of subparagraphs (iii), (iv) and (v) of this paragraph.

(p) The master of any ship equipped with an inert gas system shall be provided with an instruction manual covering operational, safety and occupational health requirements relevant to the system.

REGULATION 63

Cargo pump room

Each cargo pump room shall be provided with a fixed fire-fighting system operated from a readily accessible position outside the pump room. The system shall use water-spray or another suitable medium satisfactory to the Administration.

REGULATION 64

Hose nozzles

All hose water nozzles provided shall be of an approved dual purpose type (i.e. spray/jet type) incorporating a shut-off.

PART F—SPECIAL FIRE SAFETY MEASURES FOR EXISTING PASSENGER SHIPS

[For the purposes of this Part of this Chapter, all references to Regulation . . . (1948) mean references to Regulations of Chapter II of the International Convention for the Safety of Life at Sea, 1948, and all references to Regulation . . . (1960) mean, unless otherwise stated, references to Regulations of Chapter II of the International Convention for the Safety of Life at Sea, 1960.]

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 65

Toepassing

Enige passasierskip met meer as 36 passasiers moet ten minste aan die volgende voldoen:

(a) 'n Skip waarvan die kiel voor 19 November 1952 gelê is, moet voldoen aan die bepalings van Regulasies 66 tot en met 85 van hierdie deel.

(b) 'n Skip waarvan die kiel op of na 19 November 1952 maar voor 26 Mei 1965 gelê is, moet voldoen aan die bepalings van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1948, ten opsigte van die brandbeveiligingsmaatreëls in daardie Konvensie van toepassing op nuwe skepe, en moet ook voldoen aan die bepalings van Regulasies 68 (b) en (c), 75, 77 (b), 78, 80 (b), 81 (b) tot (g), 84 en 85 van hierdie Deel.

(c) 'n Skip waarvan die kiel op of na 26 Mei 1965 gelê is, maar voordat die huidige Konvensie van krag word, moet, tensy dit voldoen aan Dele A en B van hierdie Hoofstuk, voldoen aan die bepalings van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960, ten opsigte van die brandbeveiligingsmaatreëls in daardie Konvensie van toepassing op nuwe skepe, en moet ook voldoen aan die bepalings van Regulasies 68 (b) en (c), 80 (b), 81 (b), (c) en (d) en 85 van hierdie deel.

REGULASIE 66

Bouwerk

Die strukturele komponente moet van staal of ander geskikte materiaal ooreenkomstig Regulasie 27 (1948) wees, behalwe dat afgesonderde dekhuise sonder akkommodasie en dekke wat aan die weer blootgestel is van hout kan wees indien strukturele brandbeveiligingsmaatreëls tot tevredenheid van die Administrasie getref word.

REGULASIE 67

Vertikale hoofsones

Die skip moet deur Klas "A"-verdelings onderverdeel wees in vertikale hoofsones ooreenkomstig Regulasie 28 (1948). Sulke verdelings moet sover doenlik toereikende isoleringswaarde hê, met inagneming van die aard van die aangrensende ruimtes soos bepaal in Regulasie 26 (c) (iv) (1948).

REGULASIE 68

Openinge in vertikale hoofsonebeskotte

(a) Die skip moet wesenlik voldoen aan Regulasie 29 (1948).

(b) Branddeure moet van staal of ekwivalente materiaal wees, met of sonder onbrandbare isolering.

(c) In die geval van ventileringskokers en -kanale met 'n dwarsdeursneeoppervlakte groter as 0,02 vierkante meter (31 vierkante duim) wat hoofsoneverdelings deurdring, moet die volgende bykomende bepalings geld:

(i) Vir kokers en kanale met 'n dwarsdeursneeoppervlakte van tussen 0,02 vierkante meter (31 vierkante duim) en tot en met 0,075 vierkante meter (116 vierkante duim), moet die branddempers van 'n faalvrye outomatiessluitende tipe wees, of sulke kokers en kanale moet minstens 457 millimeter (18 duim) ver aan weerskante van die verdeling geïsoleer wees om aan die toepaslike beskotvereistes te voldoen;

REGULATION 65

Application

Any passenger ship carrying more than 36 passengers shall at least comply as follows:

(a) A ship, the keel of which was laid before 19 November 1952, shall comply with the provisions of Regulations 66 to 85 inclusive of this Part.

(b) A ship, the keel of which was laid on or after 19 November 1952 but before 26 May 1965, shall comply with the provisions of the International Convention for the Safety of Life at Sea, 1948, relating to the fire safety measures applicable in that Convention to new ships and shall also comply with the provisions of Regulations 68 (b) and (c), 75, 77 (b), 78, 80 (b), 81 (b) to (g), 84 and 85 of this Part.

(c) A ship, the keel of which was laid on or after 26 May 1965, but before the present Convention comes into force, shall, unless it complies with Parts A and B of this Chapter, comply with the provisions of the International Convention for the Safety of Life at Sea, 1960 relating to the fire safety measures applicable in that Convention to new ships and shall also comply with Regulations 68 (b) and (c), 80 (b), 81 (b), (c) and (d) and 85 of this Part.

REGULATION 66

Structure

The structural components shall be of steel or other suitable material in compliance with Regulation 27 (1948), except that isolated deckhouses containing no accommodation and decks exposed to the weather may be of wood if structural fire protection measures are taken to the satisfaction of the Administration.

REGULATION 67

Main vertical zones

The ship shall be subdivided by "A" Class divisions into main vertical zones in compliance with Regulation 28 (1948). Such divisions shall have as far as practicable adequate insulating value, taking into account the nature of the adjacent spaces as provided for in Regulation 26 (c) (iv) (1948).

REGULATION 68

Openings in main vertical zone bulkheads

(a) The ship shall comply substantially with Regulation 29 (1948).

(b) Fire doors shall be of steel or equivalent material with or without non-combustible insulation.

(c) In the case of ventilation trunks and ducts having a cross-sectional area of 0,02 square metres (31 square inches) or more which pass through main zone divisions, the following additional provisions shall apply:

(i) For trunks and ducts having cross-sectional areas between 0,02 square metres (31 square inches) and 0,075 square metres (116 square inches) inclusive, fire dampers shall be of a fail-safe automatic closing type, or such trunks and ducts shall be insulated for at least 457 millimetres (18 inches) on each side of the division to meet the applicable bulkhead requirements;

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(ii) vir kokers en kanale met 'n groter dwars deursneeoppervlakte as 0,075 vierkante meter (116 vierkante duim) moet die branddempers van 'n faalvrye outomaties-sluitende tipe wees.

REGULASIE 69

Isolering van akkommodasieruimtes van masjinerie-, vrag- en diensruimtes

Die skip moet voldoen aan Regulasie 31 (1948).

REGULASIE 70

Toepassing in verhouding tot Metodes I, II *en* III

Elke akkommodasieruimte en diensruimte in 'n skip moet voldoen aan al die bepalings soos gestipuleer in een van die paragrawe (a), (b), (c) of (d) van hierdie Regulasie:

(a) Wanneer 'n skip oorweeg word vir aanvaarding in die konteks van Metode I, moet 'n netwerk van onbrandbare Klas "B"-beskotte voorsien word wat wesenlik voldoen aan Regulasie 30 (a) (1948), tesame met die maksimum gebruik van onbrandbare materiale in ooreenstemming met Regulasie 39 (a) (1948).

(b) Wanneer 'n skip oorweeg word vir aanvaarding in die konteks van Metode II, moet—

(i) daar 'n outomatiese sproeier- en brandalarmstelsel voorsien word wat in wese voldoen aan Regulasies 42 en 48 (1948);

(ii) die gebruik van alle soorte brandbare stowwe beperk word vir sover dit redelik en doenlik is.

(c) Wanneer 'n skip oorweeg word vir aanvaarding in die konteks van Metode III, moet 'n netwerk van brandwerende beskotte aangebring word wat van dek tot dek strek en wat wesenlik voldoen aan Regulasie 30 (b) (1948) tesame met 'n outomatiese brandopsporingsstelsel wat wesenlik voldoen aan Regulasie 43 (1948). Die gebruik van brandbare en hoogs ontvlambare materiale sal beperk word soos voorgeskryf in Regulasies 39 (b) en 40 (g) (1948). 'n Afwyking van die vereistes van Regulasies 39 (b) en 40 (g) (1948) kan toegelaat word indien 'n brandpatrolliediens met tussenposes van hoogstens 20 minute voorsien word.

(d) Wanneer 'n skip oorweeg word vir aanvaarding in die konteks van Metode III, moet—

(i) bykomende Klas "A"-verdelings binne die akkommodasieruimtes voorsien word ten einde die gemiddelde lengte van die vertikale hoofsones in hierdie ruimtes te beperk tot ongeveer 20 meter (65,5 voet);

(ii) 'n outomatiese brandverklikstelsel voorsien word wat wesenlik voldoen aan Regulasie 43 (1948);

(iii) alle blootgestelde oppervlaktes en hulle deklae, van die gang- en kajuutbeskotte in akkommodasieruimtes, 'n beperkte vlamverspreidingsvermoë hê;

(iv) die gebruik van brandbare stowwe beperk word soos voorgeskryf is in Regulasie 39 (b) (1948). 'n Afwyking van die vereistes van Regulasie 39 (b) (1948) kan toegelaat word indien 'n brandpatroliediens met tussenposes van hoogstens 20 minute voorsien word;

(v) bykomende onbrandbare Klas "B"-verdelings moet van dek tot dek aangebring word om 'n netwerk van brandvertragende beskotte te vorm waarin die oppervlakte van enige kompartement, behalwe openbare ruimtes, oor die algemeen nie 300 vierkante meter (3 200 vierkante voet) oorskry nie.

(ii) for trunks and ducts having a cross-sectional area exceeding 0,075 square metres (116 square inches), fire dampers shall be of a fail-safe automatic closing type.

REGULATION 69

Separation of accommodation spaces from machinery, cargo and service spaces

The ship shall comply with Regulation 31 (1948).

REGULATION 70

Application relative to Methods I, II *and* III

Each accommodation space and service space in a ship shall comply with all the provisions stipulated in one of the paragraphs (a), (b), (c) or (d) of this Regulation:

(a) When a ship is being considered for acceptance in the context of Method I, a network of non-combustible "B" Class bulkheads shall be provided in substantial compliance with Regulation 30 (a) 1948) together with maximum use of non-combustible materials in compliance with Regulation 39 (a) (1948).

(b) When a ship is being considered for acceptance in the context of Method II—

(i) an automatic sprinkler and fire alarm system shall be provided which shall be in substantial compliance with Regulations 42 and 48 (1948); and

(ii) the use of combustible materials of all kinds shall be reduced as far as is reasonable and practicable.

(c) When a ship is being considered for acceptance in the context of Method III, a network of fire-retarding bulkheads shall be fitted from deck to deck in substantial compliance with Regulation 30 (b) (1948), together with an automatic fire detection system in substantial compliance with Regulation 43 (1948). The use of combustible and highly inflammable materials shall be restricted as prescribed in Regulations 39 (b) and 40 (g) (1948). Departure from the requirements of Regulations 39 (b) and 40 (g) (1948) may be permitted if a fire patrol is provided at intervals not exceeding 20 minutes.

(d) when a ship is being considered for acceptance in the context of Method III—

(i) additional "A" Class divisions shall be provided within the accommodation spaces in order to reduce in these spaces the mean length of the main vertical zones to about 20 metres (65,5 feet); and

(ii) an automatic fire detection system shall be provided in substantial compliance with Regulation 43 (1948); and

(iii) all exposed surfaces, and their coatings, of corridor and cabin bulkheads in accommodation spaces shall be of limited flame-spreading power; and

(iv) the use of combustible materials shall be restricted as prescribed in Regulation 39 (b) (1948). Departure from the requirements of Regulation 39 (b) (1948) may be permitted if a fire patrol is provided at intervals not exceeding 20 minutes; and

(v) additional non-combustible "B" Class divisions shall be fitted from deck to deck forming a network of fire-retarding bulkheads within which the area of any compartment, except public spaces, will in general not exceed 300 square metres (3 200 square feet).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 71

Beveiliging van vertikale trappe

Die trappe moet voldoen aan Regulasie 33 (1948), behalwe dat die Administrasie in buitengewoon moeilike gevalle die gebruik van onbrandbare Klas "B"-verdelings en -deure in plaas van Klas "A"-verdelings en -deure vir trapomsluitings kan toelaat. Boonop kan die Administrasie by uitsondering toelaat dat 'n houttrap behou word op voorwaarde dat dit deur sproeiers beveilig en bevredigend omsluit is.

REGULASIE 72

Beveiliging van hysers (passasiers- en diens-), vertikale kokers vir lig en lug, ens.

Die skip moet voldoen aan Regulasie 34 (1948).

REGULASIE 73

Beveiliging van beheerposte

Die skip moet voldoen aan Regulasie 35 (1948), behalwe dat in gevalle waar die ligging of konstruksie van beheerposte sodanig is dat dit volkome voldoening uitsluit, byvoorbeeld die houtkonstruksie van die stuurhuis, kan die Administrasie egter die gebruik van losstaande onbrandbare Klas "B"-verdelings toelaat om die grense van sulke beheerposte te beskerm. Waar die ruimtes onmiddellik onder sulke beheerposte in sodanige gevalle 'n beduidende brandgevaar inhou, moet die dek tussenin ten volle geïsoleer wees as 'n Klas "A"-verdeling.

REGULASIE 74

Beveiliging van pakkamers, ens.

Die skip moet voldoen aan Regulasie 36 (1948).

REGULASIE 75

Vensters en patryspoorte

Die dakvensters van masjinerie- en ketelruimtes moet van buite hierdie ruimtes af toegemaak kan word.

REGULASIE 76

Ventileringstelsels

(a) Alle kragventilering, behalwe dié in vrag- en masjinerieruimtes, moet toegerus wees met meesterkontroles wat op so 'n wyse buite die masjinerieruimtes en maklik toeganklik geplaas is dat dit nie nodig moet wees om na meer as drie beheerposte te gaan ten einde al die ventileringwaaiers na ander ruimtes as masjinerie- en vragruimtes tot stilstand te bring nie. Masjinerieruimte-ventilering moet van 'n meesterkontrole voorsien wees wat opereerbaar is van 'n posisie buite die masjinerieruimtes af.

(b) Doeltreffende isolering moet verskaf word vir uitlaatkanale vanaf skeepskombuise waar die kanale deur akkommodasieruimtes loop.

REGULASIE 77

Diverse items

(a) Die skip moet voldoen aan Regulasie 40 (a), (b) en (f) (1948), behalwe dat 13,73 meter (45 voet) in Regulasie 40 (a) (i) (1948) vervang kan word deur 20 meter (65,5 voet).

(b) Brandstofpompe moet toegerus wees met afstandbeheerde kontroles buite die betrokke ruimte sodat hulle tot stilstand gebring kan word ingeval 'n brand ontstaan binne die ruimte waarin hulle geleë is.

REGULATION 71

Protection of vertical stairways

The stairways shall comply with Regulation 33 (1948) except that, in cases of exceptional difficulty, the Administration may permit the use of non-combustible "B" Class divisions and doors instead of "A" Class divisions and doors for stairway enclosures. Moreover, the Administration may permit exceptionally the retention of a wooden stairway subject to its being sprinkler-protected and satisfactorily enclosed.

REGULATION 72

Protection of lifts (passenger and service), vertical trunks for light and air, etc.

The ship shall comply with Regulation 34 (1948).

REGULATION 73

Protection of control stations

The ship shall comply with Regulation 35 (1948), except however that in cases where the disposition or construction of control stations is such as to preclude full compliance, e.g. timber construction of wheelhouse, the Administration may permit the use of free-standing non-combustible "B" Class divisions to protect the boundaries of such control stations. In such cases, where spaces immediately below such control stations constitute a significant fire hazard, the deck between shall be fully insulated as an "A" Class division.

REGULATION 74

Protection of store-rooms, etc.

The ship shall comply with Regulation 36 (1948).

REGULATION 75

Windows and sidescuttles

Skylights of engine and boiler spaces shall be capable of being closed from outside such spaces.

REGULATION 76

Ventilation systems

(a) All power ventilation, except carco and machinery space ventilation, shall be fitted with master controls so located outside the machinery space and in readily accessible positions, that it shall not be necessary to go to more than three stations in order to stop all the ventilation fans to spaces other than machinery and cargo spaces. Machinery space ventilation shall be provided with a master control operable from a position outside the machinery space.

(b) Efficient insulation shall be provided for exhaust ducts from galley ranges where the ducts pass through accommodation spaces.

REGULATION 77

Miscellaneous items

(a) The ship shall comply with Regulation 40 (a), (b) and (f) (1948), except that in Regulation 40 (a) (i) (1948), 20 metres (65,5 feet) may be substituted for 13,73 metres (45 feet).

(b) Fuel pumps shall be fitted with remote controls situated outside the space concerned so that they may be stopped in the event of a fire arising in the space in which they are located.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 78

Kinematografiese film

Film met 'n sellulosenitraat-basis moet nie in kinematografiese inrigtings aan boord van die skip gebruik word nie.

REGULASIE 79

Planne

Planne moet voorsien word ooreenkomstig Regulasie 44 (1948).

REGULASIE 80

Pompe, brandtoevoerstelsels, brandkrane en -slange

(a) Daar moet voldoen word aan die bepalings van Regulasie 45 (1948).

(b) Water uit die brandtoevoerpyp moet sover doenlik onmiddellik beskikbaar wees deur òf die handhawing van druk òf die afstandbeheer van brandpompe, welke beheer maklik opereerbaar en geredelik toeganklik moet wees.

REGULASIE 81

Vereistes vir die opsporing en blus van brande

Algemeen

(a) Daar moet voldoen word aan die vereistes van Regulasie 50 (a) tot en met (o) (1948), onderworpe aan die verdere bepalings van hierdie Regulasie.

Patrollies, opsporing en kommunikasiestelsel

(b) Elke lid van enige brandpatrollie wat ingevolge hierdie deel vereis word, moet opgelei word om vertroud te wees met die inrigting van die skip sowel as met die posisie en werking van enige toerusting wat hy moontlik sal moet gebruik.

(c) 'n Spesiale alarm om die bemanning byeen te roep moet aangebring word, wat deel van die skip se algemene alarmstelsel kan wees.

(d) 'n Openbare luidsprekerstelsel of ander doeltreffende kommunikasiemiddel moet ook dwarsdeur die akkommodasie-, openbare en diensruimtes beskikbaar wees.

Masjinerie- en ketelruimtes

(e) Die getal, tipe en verspreiding van brandblussers moet in ooreenstemming wees met paragrawe (g) (ii), (g) (iii) en (h) (ii) van Regulasie 64 (1960).

Internasionale landaansluiting

(f) Die bepalings van Regulasie 64 (d) (1960) moet hier geld.

Brandweermanuitrustings

(g) Die bepalings van Regulasie 64 (j) (1960) moet hier geld.

REGULASIE 82

Geredelike beskikbaarheid van brandbestrydingsapparaat

Die bepalings van Regulasie 66 (1960) moet hier geld.

REGULASIE 83

Nooduitgange

Die bepalings van Regulasie 54 (1948) moet hier geld.

REGULATION 78

Cinematograph film

Cellulose-nitrate-based film shall not be used in cinematograph installations on board ship.

REGULATION 79

Plans

Plans shall be provided in compliance with Regulation 44 (1948).

REGULATION 80

Pumps, fire main systems, hydrants and hoses

(a) The provisions of Regulation 45 (1948) shall be complied with.

(b) Water from the fire main shall, as far as practicable, be immediately available, such as by maintenance of pressure or by remote control of fire pumps, which control shall be easily operable and readily accessible.

REGULATION 81

Fire detection and extinction requirements

General

(a) The requirements of Regulation 50 (a) to (o) (1948) inclusive shall be complied with, subject to further provisions of this Regulation.

Patrols, detection and communication system

(b) Each member of any fire patrol required by this Part shall be trained to be familiar with the arrangements of the ship as well as the location and operation of any equipment he may be called upon to use.

(c) A special alarm to summon the crew shall be fitted which may be part of the ship's general alarm system.

(d) A public address system or other effective means of communication shall also be available throughout the accommodation, public and service spaces.

Machinery and boiler spaces

(e) The number, type and distribution of fire extinguishers shall comply with paragraphs (g) (ii), (g) (iii) and (h) (ii) of Regulation 64 (1960).

International shore connection

(f) The provisions of Regulation 64 (d) (1960) shall be complied with.

Fireman's outfits

(g) The provisions of Regulation 64 (j) (1960) shall be complied with.

REGULATION 82

Ready availability of fire-fighting appliances

The provisions of Regulation 66 (1960) shall be complied with.

REGULATION 83

Means of escape

The provisions of Regulation 54 (1948) shall be complied with.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 84

Noodbron van elektriese krag

Daar moet voldoen word aan die bepalings van Regulasie 22 (a), (b) en (c) (1948), behalwe dat die plasing van die noodkragbron in ooreenstemming met die vereistes van Regulasie 25 (a) (1960) moet wees.

REGULASIE 85

Oefenparades en driloefeninge

By die brandoefeninge soos genoem in Regulasie 26 van Hoofstuk III van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960, moet daar van elke bemanningslid vereis word om sy vertroudheid met die inrigtings en fasiliteite van die skip, met sy pligte en met enige toerusting wat hy moontlik sal moet gebruik, te demonstreer. Van gesagvoerders moet verwag word dat hulle die bemanning in dié verband vertroud sal maak en sal onderrig.

HOOFSTUK III

REDDINGSTOESTELLE, ENS.

REGULASIE 1

Toepassing

(a) Behalwe wanneer daar uitdruklik anders bepaal word, is hierdie Hoofstuk as volg van toepassing op nuwe skepe wat vir internasionale reise gebruik word:

Deel A—Passasierskepe en vragskepe.

Deel B—Passasierskepe.

Deel C—Vragskepe.

(b) In die geval van bestaande skepe wat vir internasionale reise gebruik word en waarvan die kiele gelê is of wat op 'n dergelike stadium van konstruksie was op of na die datum van inwerkingtreding van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960, geld die vereistes van Hoofstuk III van daardie Konvensie wat van toepassing is op nuwe skepe soos omskryf in daardie Konvensie.

(c) In die geval van bestaande skepe wat vir internasionale reise gebruik word en waarvan die kiele gelê is of wat op 'n dergelike stadium van konstruksie was voor die datum van inwerkingtreding van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960, en nie reeds aan die bepalings van Hoofstuk III van daardie Konvensie betreffende nuwe skepe voldoen nie, moet die maatreëls wat op elke skip getref moet word, deur die Administrasie oorweeg word ten einde te verseker dat vir sover doenlik en redelik en so spoedig moontlik wesenlik aan die voorskrifte van Hoofstuk III van daardie Konvensie voldoen word. Die voorbehoudsbepaling van subparagraaf (b) (i) van Regulasie 27 van hierdie Hoofstuk kan egter net op bestaande skepe toegepas word indien—

(i) daar aan die bepalings van Regulasies 4, 8, 14, 18 en 19 en paragrawe (a) en (b) van Regulasie 27 van hierdie Hoofstuk voldoen word;

(ii) die reddingsvlotte wat ooreenkomstig die bepalings van paragraaf (b) van Regulasie 27 aan boord moet wees, aan die voorskrifte van òf Regulasie 15 òf Regulasie 16 en van Regulasie 17 van hierdie Hoofstuk voldoen; en

REGULATION 84

Emergency source of electrical power

The provisions of Regulation 22 (a), (b) and (c) (1948) shall be complied with except that the location of the emergency source of electrical power shall be in accordance with the requirements of Regulation 25 (a) (1960).

REGULATION 85

Practice musters and drills

At the fire drills mentioned in Regulation 26 of Chapter III of the International Convention for the Safety of Life at Sea, 1960 each member of the crew shall be required to demonstrate his familiarity with the arrangements and facilities of the ship, his duties, and any equipment he may be called upon to use. Masters shall be required to familiarize and instruct the crews in this regard.

CHAPTER III

LIFE-SAVING APPLIANCES, ETC.

REGULATION 1

Application

(a) This Chapter, except where it is otherwise expressly provided, applies as follows to new ships engaged on international voyages:

Part A—Passenger ships and cargo ships.

Part B—Passenger ships.

Part C—Cargo ships.

(b) In the case of existing ships engaged on international voyages, the keels of which were laid or which were at a similar stage of construction on or after the date of coming into force of the International Convention for the Safety of Life at Sea, 1960, the requirements of Chapter III of that Convention applicable to new ships as defined in that Convention shall apply.

(c) In the case of existing ships engaged on international voyages, the keels of which were laid or which were at a similar stage of construction before the date of coming into force of the International Convention for the Safety of Life at Sea, 1960, and which do not already comply with the provisions of Chapter III of that Convention relating to new ships, the arrangements in each ship shall be considered by the Administration with a view to securing, so far as this is practicable and reasonable, and as early as possible, substantial compliance with the requirements of Chapter III of that Convention. The proviso to subparagraph (b) (i) of Regulation 27 of this Chapter may, however, be applied to existing ships referred to in this paragraph only if—

(i) the provisions of Regulations 4, 8, 14, 18 and 19 and paragraphs (a) and (b) of Regulation 27 of this Chapter are complied with;

(ii) the liferafts carried in accordance with the provisions of paragraph (b) of Regulation 27 comply with the requirements of either Regulation 15 or Regulation 16, and of Regulation 17 of this Chapter; and

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(iii) die totale getal persone aan boord nie verhoog word as gevolg van die verskaffing van reddingsvlotte nie, tensy die skip geheel en al voldoen aan die bepalings van:

(1) Deel B van Hoofstuk II-1;

(2) subparagrawe (a) (iii) en (iv) van Regulasie 21 of subparagraaf (a) (iii) van Regulasie 48 van Hoofstuk II-2, waar van toepassing; en

(3) paragrawe (a), (b), (e) en (f) van Regulasie 29 van hierdie Hoofstuk.

DEEL A—ALGEMEEN

(Deel A is op sowel passasierskepe as vragskepe van toepassing)

REGULASIE 2

Definisies

Vir die doel van hierdie Hoofstuk:

(a) "Kort internasionale reis" beteken 'n internasionale reis waarop 'n skip nie meer as 200 myl sal wees vanaf 'n hawe of plek waarin die passasiers en bemanning in veiligheid gebring sal kan word nie en waarop die afstand tussen die laaste aanloophawe in die land waarin die reis 'n aanvang geneem het en die uiteindelike bestemmingshawe nie meer as 600 myl sal wees nie.

(b) "Reddingsvlot" beteken 'n reddingsvlot wat òf aan Regulasie 15 òf aan Regulasie 16 van hierdie Hoofstuk voldoen.

(c) "Goedgekeurde tewaterlatingstoestel" beteken 'n toestel wat deur die Administrasie goedgekeur is en in staat is om 'n reddingsvlot met die volle getal persone wat hy mag ophê en sy volledige uitrusting aan boord vanaf die inskepingsplek te water te laat.

(d) "Gediplomeerde reddingsbootman" beteken 'n lid van die bemanning wat die houer is van 'n bevoegdheidsertifikaat wat ooreenkomstig Regulasie 32 van hierdie Hoofstuk uitgereik is.

(e) "Drywende toestel" beteken dryfuitrusting (uitgesonderd reddingsbote, reddingsvlotte, reddingsboeie en reddingsbaadjies) wat ontwerp is om 'n gespesifiseerde getal persone in die water te onderskraag en so gebou is dat hy sy vorm en eienskappe behou.

REGULASIE 3

Vrystellings

(a) Indien die Administrasie van mening is dat die beskutte aard en omstandighede van die reis sodanig is dat dit die toepassing van die volle vereistes van hierdie Hoofstuk onredelik en onnodig sou maak, kan hy in daardie mate individuele skepe of klasse skepe wat gedurende hul reis nie verder as 20 myl van die naaste land vaar nie, van die bepalings van hierdie Hoofstuk vrystel.

(b) In die geval van passasierskepe wat in spesiale ondernemings vir die vervoer van groot getalle passasiers, soos by pelgrimsvaarte, gebruik word, kan die Administrasie, indien hy daarvan oortuig is dat die vereistes van hierdie Hoofstuk nie toegepas kan word nie, sulke skepe wat aan sy land behoort van daardie vereistes vrystel op voorwaarde dat hulle geheel en al voldoen aan die bepalings van—

(i) die reëls in die bylae van die *Special Trade Passenger Ship Agreement*, 1971; en

(ii) die reëls in die bylae van die *Protocol on Space Requirements for Special Trade Passenger Ships*, 1973, wanneer dit van krag word.

(iii) the total number of persons on board shall not be increased as the result of the provision of liferafts unless the ship fully complies with the provisions of—

(1) Part B of Chapter II-1;

(2) subparagraphs (a) (iii) and (iv) of Regulation 21 or subparagraph (a) (iii) or Regulation 48 of Chapter II-2, as applicable; and

(3) paragraphs (a), (b), (e) and (f) of Regulation 29 of this Chapter.

PART A—GENERAL

(Part A applies to both passenger ships and cargo ships)

REGULATION 2

Definitions

For the purpose of this Chapter:

(a) "Short international voyage" means 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, and which does not exceed 600 miles in length between the last port of call in the country in which the voyage begins and the final port of destination.

(b) "Liferaft" means a liferaft complying with either Regulation 15 or Regulation 16 of this Chapter.

(c) "Approved launching device" means a device approved by the Administration, capable of launching from the embarkation position a liferaft fully loaded with the number of persons it is permitted to carry and with its equipment.

(d) "Certificated lifeboatman" means any member of the crew who holds a certificate of efficiency issued under the provisions of Regulation 32 of this Chapter.

(e) "Buoyant apparatus" means flotation equipment (other than lifeboats, liferafts, lifebuoys and life-jackets) designed to support a specified number of persons who are in the water and of such construction that it retains its shape and properties.

REGULATION 3

Exemptions

(a) The Administration, if it considers that the sheltered nature and conditions of the voyage are such as to render the application of the full requirements of this Chapter unreasonable or unnecessary, may to that extent exempt from the requirements of this Chapter individual ships or classes of ships which, in the course of their voyage, do not go more than 20 miles from the nearest land.

(b) 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, when they belong to its country, from those requirements, provided that they comply fully with the provisions of—

(i) the Rules annexed to the Special Trade Passenger Ships Agreement, 1971; and

(ii) the Rules annexed to the Protocol on Space Requirements for Special Trade Passenger Ships, 1973, when it enters into force.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 4

Geredelike beskikbaarheid van reddingsbote, reddingsvlotte en drywende toestelle

(a) Die algemene beginsel wat geld vir die verskaffing van reddingsbote, reddingsvlotte en drywende toestelle op 'n skip waarop hierdie Hoofstuk van toepassing is, is dat hulle in 'n noodgeval geredelik beskikbaar sal wees.

(b) Ten einde geredelik beskikbaar te wees, moet die reddingsbote, reddingsvlotte en drywende toestelle aan die volgende voorwaardes voldoen:

(i) Hulle moet selfs onder ongunstige omstandighede met betrekking tot kop- of stuurlas en met 'n slagsy van 15 grade veilig en vinnig te water gelaat kan word.

(ii) Dit moet moontlik wees om inskeping in die reddingsbote en reddingsvlotte vinnig en ordelik te bewerkstellig.

(iii) Elke reddingsboot, reddingsvlot en drywende toestel moet so geplaas wees dat dit nie die hantering van ander bote, reddingsvlotte en drywende toestelle sal belemmer nie.

(c) Alle reddingstoestelle moet in werkende orde en vir onmiddellike gebruik beskikbaar gehou word voordat die skip die hawe verlaat en te alle tye gedurende die reis.

REGULASIE 5

Bou van reddingsbote

(a) Alle reddingsbote moet behoorlik gebou wees en so 'n vorm en sodanige afmetings hê dat hulle voldoende stabiliteit in 'n seegang en met die volle kwota persone en uitrusting aan boord, voldoende vryboord sal hê. Alle reddingsbote moet in staat wees om positiewe stabiliteit te behou wanneer hulle aan die see blootgestel is en hul volle kwota persone en uitrusting aan boord het.

(b) (i) All reddingsbote moet onbuigsame sye en slegs inwendige dryfvermoë hê. Die Administrasie kan reddingsbote met 'n onbuigsame onderdak goedkeur, mits dit sowel van binne as van buite maklik oopgemaak kan word en nie vinnige inskeping en ontskeping of die tewaterlating en hantering van die reddingsboot belemmer nie.

(ii) Motorreddingsbote kan tot tevredenheid van die Administrasie toegerus word met middels om te voorkom dat water by die voorstewe binnedring.

(iii) Alle reddingsbote moet 'n leng e hê van minstens 7,3 meter (24 voet) behalwe wanneer die Administrasie dit weens die grootte van die skip of om ander redes onredelik of ondoenlik ag om sulke reddingsbote aan boord te hê. Op geen skip mag die reddingsbote minder as 4,9 meter (16 voet) lank wees nie.

(c) Geen reddingsboot mag goedgekeur word wat met sy volle lading persone en uitrusting meer as 20 300 kilogram (20 ton) weeg of bereken ooreenkomstig Regulasie 7 van hierdie Hoofstuk 'n dravermoë van meer as 150 persone het nie.

(d) All reddingsbote wat toegelaat word om meer as 60 persone maar hoogstens 100 persone te dra, moet òf motorreddingsbote wees wat aan die vereistes van Regulasie 9 van hierdie Hoofstuk voldoen, òf reddingsbote wat toegerus is met 'n goedgekeurde meganiese aandryfmiddel wat aan Regulasie 10 van hierdie Hoofstuk voldoen. Alle reddingsbote wat toegelaat word om meer as 100 persone te dra, moet motorreddingsbote wees wat aan die vereistes van Regulasie 9 van hierdie Hoofstuk voldoen.

REGULATION 4

Ready availability of lifeboats, liferafts and buoyant apparatus

(a) The general principle governing the provision of lifeboats, liferafts and buoyant apparatus in a ship to which this Chapter applies is that they shall be readily available in case of emergency.

(b) To be readily available, the lifeboats, liferafts and buoyant apparatus shall comply with the following conditions:

(i) They shall be capable of being put into the water safely and rapidly even under unfavourable conditions of trim and of 15 degree of list;

(ii) it shall be possible to effect embarkation into the lifeboats and liferafts rapidly and in good order;

(iii) the arrangement of each lifeboat, liferaft and article of buoyant apparatus shall be such that it will not interfere with the operation of other boats, liferafts and buoyant apparatus.

(c) All the life-saving appliances shall be kept in working order and availble for immediate use before the ship leaves port and at all times during the voyage.

REGULATION 5

Construction of lifeboats

(a) All lifeboats shall be properly constructed and shall be of such form and proportions that they shall have ample stability in a seaway, and sufficient freeboard when loaded with their full complement of persons and equipment. All lifeboats shall be capable of maintaining positive stability when open to the sea and loaded with their full complement of persons and equipment.

(b) (i) All lifeboats shall have rigid sides and internal buoyancy only. The Administration may approve lifeboats with a rigid shelter, provided that it may be readily opened from both inside and outside, and does not impede rapid embarkation and disembarkation or the launching and handling of the lifeboat.

(ii) Motor lifeboats may be fitted to the satisfaction of the Administration with a means for preventing the entry of water at the fore end.

(iii) All lifeboats shall be not less than 7,3 metres (24 feet) in length except where owing to the size of the ship, or for other reasons, the Administration considers the carriage of such lifeboats unreasonable or impracticable. In no ship shall the lifeboats be less than 4,9 metres (16 feet) in length.

(c) No lifeboat may be approved the weight of which when fully laden with persons and equipment exceeds 20 300 kilogrammes (20 tons) or which has a carrying capacity calculated in accordance with Regulation 7 of this Chapter of more than 150 persons.

(d) All lifeboats permitted to carry more than 60 persons but not more than 100 persons shall be either motor lifeboats complying with the requirements of Regulation 9 of this Chapter or be lifeboats fitted with an approved means of mechanical propulsion complying with Regulation 10 of this Chapter. All lifeboats permitted to carry more than 100 persons shall be motor lifeboats complying with the requirements of Regulation 9 of this Chapter.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(e) Alle reddingsbote moet sterk genoeg wees om veilig te water gelaat te kan word wanneer hulle hul volle kwota persone en uitrusting aan boord het. Alle reddingsbote moet so sterk wees dat hulle nie enige nadefleksie sal toon wanneer hulle aan 'n oorbelasting van 25 persent onderwerp word nie.

(f) Alle reddingsbote moet 'n gemiddelde seeg hê wat minstens gelyk is aan 4 persent van hulle lengte. Die seeg moet ongeveer 'n paraboliese vorm hê.

(g) In reddingsbote wat toegelaat word om 100 of meer persone te dra, moet die volume van die dryfvermoë tot tevredenheid van die Administrasie vergroot word.

(h) Alle reddingsbote moet inherente dryfvermoë hê, of moet toegerus wees met waterdigte lugkaste of ander ekwivalente korrosievrye drywende materiaal wat nie deur olie of olieprodukte nadelig aangetas sal word nie en voldoende is om die boot en sy uitrusting drywend te hou wanneer die boot vol water en aan die see blootgestel is. 'n Addisionele volume waterdigte lugkaste of ander ekwivalente korrosievrye drywende materiaal wat nie deur olie of olieprodukte nadelig aangetas word nie en gelyk is aan minstens een tiende van die kubieke inhoud van die boot, moet ook verskaf word. Die Administrasie kan toelaat dat die waterdigte lugkaste gevul word met 'n korrosievrye drywende materiaal wat nie deur olie of olieprodukte nadelig aangetas word nie.

(i) Alle dwarsbanke en sybanke moet so laag doenlik in die reddingsboot aangebring word.

(j) In die geval van alle reddingsbote, behalwe houtreddingsbote wat van planke vervaardig is, moet die blokkoëffisiënt van die kubieke inhoud van die boot, soos ooreenkomstig Regulasie 6 van hierdie Hoofstuk bepaal minstens 0,64 wees; met dien verstande dat enige sodanige reddingsboot 'n blokkoëffisiënt van meer as 0,64 kan hê indien die Administrasie tevrede is met die toereikendheid van die metasentriese hoogte en vryboord wanneer die reddingsboot gelaai is met sy volle kwota persone en uitrusting.

REGULASIE 6

Kubieke inhoud van reddingsbote

(a) Die kubieke inhoud van 'n reddingsboot moet bepaal word volgens die reël van Stirling (Simpson) of volgens enige ander ewe noukeurige metode. Die inhoud van 'n reddingsboot met 'n plat agterstewe moet bereken word asof die reddingsboot 'n skerp agterstewe het.

(b) 'n Reddingsboot se inhoud in kubieke meter (of voet) wat met behulp van die reël van Stirling bereken word, kan byvoorbeeld beskou word as uitgedruk deur die volgende formule, naamlik:

$$\text{Inhoud} = \frac{L}{12}(4A+2B+4C)$$

waar L die reddingsboot se lengte in meter (of voet) vanaf die binnekant van die beplanking of beplating van die voorstewe tot by die ooreenkomstige punt van die agterstewe verteenwoordig; in die geval van 'n reddingsboot met 'n plat agterstewe word die lengte gemeet tot by die binnekant van die spieël.

A, B, C verteenwoordig onderskeidelik die oppervlaktes van die dwarsdeursneë op 'n kwart van die lengte voor midskeeps, en 'n kwart van die lengte agter wat ooreenkom met die drie punte wat verkry word deur L in vier gelyke dele te verdeel (die oppervlaktes aan die twee ente van die reddingsboot word as onbeduidend beskou).

(e) All lifeboats shall be of sufficient strength to enable them to be safely lowered into the water when loaded with their full complement of persons and equipment. All lifeboats shall be of such strength that they will not suffer residual deflection if subjected to an overload of 25 per cent.

(f) All lifeboats shall have a mean sheer at least equal to 4 per cent of their length. The sheer shall be approximately parabolic in form.

(g) In lifeboats permitted to carry 100 or more persons the volume of the buoyancy shall be increased to the satisfaction of the Administration.

(h) All lifeboats shall have inherent buoyancy, or shall be fitted with watertight air cases or other equivalent non-corrodible buoyant material which shall not be adversely affected by oil or oil products, sufficient to float the boat and its equipment when the boat is flooded and open to the sea. An additional volume of watertight air cases or other equivalent non-corrodible buoyant material, which shall not be adversely affected by oil or oil products, equal to at least one-tenth of the cubic capacity of the boat shall also be provided. The Administration may permit the watertight air cases to be filled with a non-corrodible buoyant material which shall not be adversely affected by oil or oil products.

(i) All thwarts and side-seats shall be fitted as low in the lifeboat as practicable.

(j) The block coefficient of the cubic capacity as determined in accordance with Regulation 6 of this Chapter of all lifeboats, except wooden lifeboats made of planks, shall be not less than 0,64 provided that any such lifeboat may have a block coefficient of less than 0,64 if the Administration is satisfied with the sufficiency of the metacentric height and freeboard when the lifeboat is loaded with its full complement of persons and equipment.

REGULATION 6

Cubic capacity of lifeboats

(a) The cubic capacity of a lifeboat shall be determined by Simpson's (Stirling's) Rule or by any other method giving the same degree of accuracy. The capacity of a square-sterned lifeboat shall be calculated as if the lifeboat had a pointed stern.

(b) For example, the capacity in cubic metres (or cubic feet) of a lifeboat, calculated by the aid of Simpson's Rule, may be considered as given by the following formula:

$$\text{Capacity} = \frac{L}{12}(4A+2B+4C)$$

L being the length of the lifeboat in metres (or feet) from the inside of the planking or plating at the stem to the corresponding point at the stern post: in the case of a lifeboat with a square stern, the length is measured to the inside of the transom.

A, B, C denote respectively the areas of the cross-sections at the quarter-length forward, amidships, and the quarter-length aft, which correspond to the three points obtained by dividing L into four equal parts. (The areas corresponding to the two ends of the lifeboat are considered negligible.)

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Die oppervlaktes A, B, C word geag in vierkante meter (of voet) aangegee te wees deur agtereenvolgens die volgende formule op elk van die drie dwarsdeursneë toe te pas, naamlik:

$$\text{Oppervlakte} = \frac{h}{12}(a+4b+2c+4d+e)$$

waar h die holte in meter (of voet) vanaf die binnekant van die beplanking of beplating van die kiel tot op die hoogte van die dolboord of, in sekere gevalle, tot op 'n laer hoogte, soos hierna bepaal, verteenwoordig.

a, b, c, d, e verteenwoordig die horisontale breedtes van die reddingsboot in meter (of voet) op die boonste en onderste punte van die holte en op die drie punte wat verkry word deur h in vier gelyke dele te verdeel (a en e is die breedtes aan die uiteinde en c die breedte in die middel van h).

(c) Indien die seeg van die dolboord, gemeet op die twee punte wat op 'n kwart van die lengte van die reddingsboot se lengte vanaf die uiteindes geleë is, 1 persent van die lengte van die reddingsboot te bowe gaan, moet die holte wat gebruik word by die berekening van die oppervlakte van die dwarsdeursneë A of C beskou word as die holte midskeeps plus 1 persent van die lengte van die reddingsboot.

(d) Indien die holte van die reddingsboot midskeeps 45 persent van die breedte te bowe gaan, moet die holte wat gebruik word by die berekening van die oppervlakte van die midskeepse dwarsdeursnee B beskou word as gelyk aan 45 persent van die breedte, en die holte wat gebruik word by die berekening van die oppervlakte van die oppervlaktes van die deursnee A en C geleë op 'n kwart van die lengte, word verkry deur laasgenoemde syfer te vermeerder met 'n syfer gelyk aan 1 persent van die lengte van die reddingsboot; met dien verstande dat die holtes wat by die berekening gebruik word in geen geval die werklike holtes op hierdie punte mag te bowe gaan nie.

(e) Indien die holte van 'n reddingsboot 1,22 meter (4 voet) te bowe gaan, moet die getal persone wat deur die toepassing van hierdie reël verkry word, eweredig in die verhouding waarin 1.22 meter (4 voet) tot die werklike holte staan verminder word totdat die reddingsboot met daardie getal persone aan boord, almal met reddingsbaadjies aan, 'n bevredigende toets op die water deurgemaak het.

(f) Die Administrasie moet met behulp van geskikte formules 'n beperking stel op die getal persone wat toegelaat word in reddingsbote met baie skerp ente en in reddingsbote wat baie vol van vorm is.

(g) Die Administrasie kan aan 'n reddingsboot wat van planke gebou is, 'n inhoud gelyk aan 0,6 maal die produk van die lengte, die breedte en die holte toewys indien blyk dat hierdie formule nie 'n groter inhoud gee as dié wat volgens bogenoemde metode verkry word nie. Die afmetings moet dan op die volgende wyse gemeet word:

Lengte—Van die snypunt van die buitekant van die beplanking en die voorstewe, tot by die ooreenkomstige punt op die agterstewe of, in die geval van 'n boot met 'n plat agterstewe tot die agterkant van die spieël.

Breedte—Van die buitekant van die beplanking op die punt waar die boot die breedste is.

Holte—Midskeeps binnekant die beplanking vanaf die kiel tot by die dolboord, maar die holte wat gebruik word by die berekening van die kubieke inhoud mag in geen geval 45 persent van die breedte oorskry nie.

The areas A, B, C shall be deemed to be given in square metres (or square feet) by the successive application of the following formula to each of the three cross-sections:

$$\text{Area} = \frac{h}{12}(a+4b+2c+4d+e)$$

h being the depth measured in metres (or in feet) inside the planking or plating from the keel to the level of the gunwale, or, in certain cases, to a lower level as determined hereafter.

a, b, c, d, e denote the horizontal breadths of the lifeboat measured in metres (or in feet) at the upper and lower points of the depth and at the three points obtained by dividing h into four equal parts (a and e being the breadths at the extreme point, and c at the middle point of h).

(c) If the sheer of the gunwale, measured at the two points situated at a quarter of the length of the lifeboat from the ends, exceeds 1 per cent of the length of the lifeboat the depth employed in calculating the area of the cross-sections A or C shall be deemed to be the depth amidships plus 1 per cent of the length of the lifeboat.

(d) If the depth of the lifeboat amidships exceeds 45 per cent of the breadth, the depth employed in calculating the area of the amidship cross-section B shall be deemed to be equal to 45 per cent of the breadth, and the depth employed in calculating the areas of the quarter-length sections A and C is obtained by increasing this last figure by an amount equal to 1 per cent of the length of the lifeboat, provided that in no case shall the depths employed in the calculation exceed the actual depths at these points.

(e) If the depth of the lifeboat is greater than 1,22 metres (4 feet) the number of persons given by the application of this Rule shall be reduced in proportion to the ratio of 1,22 metres (4 feet) to the actual depth, until the lifeboat has been satisfactorily tested afloat with that number of persons on board, all wearing life-jackets.

(f) The Administration shall impose, by suitable formulae, a limit for the number of persons allowed in lifeboats with very fine ends and in lifeboats very full in form.

(g) The Administration may assign to a lifeboat constructed of wooden planks capacity equal to the product of the length, the breadth and the depth multiplied by 0,6 if it is evident that this formula does not give a greater capacity than that obtained by the above method. The dimensions shall then be measured in the following manner:

Length—From the intersection of the outside of the planking with the stem to the corresponding point at the stern post or, in the case of a square-sterned boat, to the after side of the transom.

Breadth—From the outside of the planking at the point where the breadth of the boat is greatest.

Depth—Amidships inside the planking from the keel to the level of the gunwale, but the depth used in calculating the cubic capacity may not in any case exceed 45 per cent of the breadth.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

In alle gevalle het die skeepseienaar die reg om te eis dat die kubieke inhoud van die reddingsboot deur juiste meting vasgestel moet word.

(h) Die kubieke inhoud van 'n motorreddingsboot of 'n reddingsboot met 'n ander aandryfinrigting word van die bruto inhoud verkry deur aftrekking van 'n volume gelyk aan dié in beslag geneem deur die motor en sy toebehore of ratkas van die ander aandryfinrigting en, indien hulle aan boord is, deur die radiotelegraafinstallasie en die soeklig met hul toebehore.

REGULASIE 7

Draagvermoë van reddingsbote

Die getal persone wat 'n reddingsboot toegelaat word om te bevat, is die grootste heel getal wat verkry word deur die inhoud in kubieke meter te deel—

in die geval van 'n reddingsboot met die lengte van 7,3 meter (24 voet) of meer	deur 0,283 (of wanneer die inhoud in kubieke voet gemeet word, deur 10);
in die geval van reddingsbote met 'n lengte van 4,9 meter (16 voet)	deur 0,396 (of wanneer die inhoud in kubieke voet gemeet word, deur 14); en
in die geval van reddingsbote met 'n lengte van 4,9 meter (16 voet) of meer maar minder as 7,3 meter (24 voet)	deur 'n syfer tussen 0,396 en 0,283 (of wanneer die inhoud in kubieke voet gemeet word, deur 'n syfer tussen 14 en 10) wat deur interpolasie verkry moet word;

Met dien verstande dat die getal in geen geval groter mag wees as die getal volwasse persone met reddingsbaadjies aan wat in die boot kan sit sonder om in enige opsig die gebruik van roeispane of die hantering van ander aandrywingsuitrusting te belemmer nie.

REGULASIE 8

Getal motorreddingsbote wat aan boord moet wees

(a) Op elke passasierskip moet daar aan elke kant van die skip minstens een motorreddingsboot wees wat aan die vereistes van Regulasie 9 van hierdie Hoofstuk voldoen.

Met dien verstande dat op passasierskepe waarop die totale getal persone wat die skip gesertifiseer is om te vervoer, plus die bemanning, nie 30 te bowe gaan nie, slegs een sodanige motorreddingsboot hoef vereis te word.

(b) Op elke vragskip van 1 600 ton bruto tonnemaat en groter behalwe tenkskepe, skepe wat as walvisfabriekskepe dien, skepe wat dien as vis verwerkings- of vis inmaakfabriekskepe en skepe wat gebruik word vir die vervoer van persone in die walvis-, visverwerkings- of visinmaaknywerheid, moet daar minstens een motorreddingsboot wees wat aan die vereistes van Regulasie 9 van hierdie Hoofstuk voldoen.

(c) Op elke tenkskip van 1 600 ton bruto tonnemaat en groter op elke skip wat dien as walvisfabriekskip, as visverwerkings- of visinmaakfabriekskip en elke skip wat gebruik word vir die vervoer van persone in die walvis-, visverwerkings- of visinmaaknywerhede, moet daar aan elke kant minstens een motorreddingsboot wees wat aan die vereistes van Regulasie 9 van hierdie Hoofstuk voldoen.

REGULASIE 9

Spesifikasie van motorreddingsbote

(a) 'n Motorreddingsboot moet aan die volgende voorwaardes voldoen:

(i) Hy moet toegerus wees met 'n kompressieontstekingsenjin en in so 'n toestand gehou word dat hy te alle tye gereed is vir gebruik, hy moet in staat wees om in alle omstandighede maklik te vat en daar moet

In all cases the shipowner has the right to require that the cubic capacity of the lifeboat shall be determined by exact measurement.

(h) The cubic capacity of a motor lifeboat or a lifeboat fitted with other propelling gear shall be obtained from the gross capacity by deducting a volume equal to that occupied by the motor and its accessories or the gearbox of the other propelling gear, and, when carried, the radiotelegraph installation and searchlight with their accessories.

REGULATION 7

Carrying capacity of lifeboats

The number of persons which a lifeboat shall be permitted to accommodate shall be equal to the greatest whole number obtained by dividing the capacity in cubic metres by—

in the case of a lifeboat of 7,3 metres (24 feet) in length or over	0,283 (or where the capacity is measured in cubic feet 10);
in the case of lifeboats of 4,9 metres (16 feet) in length	0,396 (or where the capacity is measured in cubic feet 14); and
in the case of lifeboats of 4,9 metres (16 feet) in length or over but under 7,3 metres (24 feet)	a number between 0,396 and 0,283 (or where the capacity is measured in cubic feet between 14 and 10), to be obtained by interpolation;

Provided that the number shall in no case exceed the number of adult persons wearing life-jackets which can be seated without in any way interfering with the use of oars or the operation of other propulsion equipment.

REGULATION 8

Number of motor lifeboats to be carried

(a) In every passenger ship there shall be carried on each side of the ship at least one motor lifeboat complying with the requirements of Regulation 9 of this Chapter.

provided that the number shall in no case exceed the number of persons which the ship is certified to carry, together with the crew, does not exceed 30, only one such motor lifeboat shall be required.

(b) In every cargo ship of 1 600 tons gross tonnage and upwards, except tankers, ships employed as whale factory ships, ships employed as fish processing or canning factory ships, and ships engaged in the carriage of persons in the whaling, fish processing or canning industries, there shall be carried at least one motor lifeboat complying with the requirements of Regulation 9 of this Chapter.

(c) In every tanker of 1 600 tons gross tonnage and upwards, in every ship employed as a whale factory ship, in every ship employed as a fish processing or canning factory ship and in every ship engaged in the carriage of persons employed in the whaling, fish processing or canning industries, there shall be carried on each side at least one motor lifeboat complying with the requirements of Regulation 9 of this Chapter.

REGULATION 9

Specification of motor lifeboats

(a) A motor lifeboat shall comply with the following conditions:

(i) It shall be fitted with a compression ignition engine and kept so as to be at all times ready for use; it shall be capable of being readily started in all conditions

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

voldoende brandstof wees om hom 24 uur onafgebroke te laat werk teen die snelheid in subparagraaf (iii) van hierdie paragraaf gespesifiseer.

(ii) Die enjin en sy toebehore moet op geskikte wyse omsluit wees ten einde te verseker dat hy onder ongunstige weeromstandighede sal werk, en die enjinkas moet brandwerend wees. Voorsiening moet vir agteruitvaart gemaak word.

(iii) Die snelheid vorentoe in kalm water wanneer die boot sy volle kwota persone en uitrusting aan boord het, moet as volg wees:

(1) In die geval van motorreddingsbote wat daar ooreenkomstig Regulasie 8 van hierdie Hoofstuk moet wees op passasierskepe, tenkskepe, skepe gebruik as walvisfabriekskepe, skepe gebruik as visverwerkings- of visinmaakfabriekskepe en skepe gebruik vir die vervoer van persone werksaam in die walvis-, visverwerkings- of visinmaaknywerhede, minstens ses knope.

(2) In die geval van enige ander motorreddingsboot, minstens vier knope.

(b) Die volume van die inwendige dryfmiddels van 'n motorreddingsboot moet bo dié wat by Regulasie 5 van hierdie Hoofstuk vereis word, vergroot word met die hoeveelheid (as daar is) waarmee die volume van die inwendige dryfmiddels wat nodig is om die enjin en sy toebehore en, indien aangebring, die soeklig en radiotelegraafinstallasie en hul toebehore te dra, die volume te bowe gaan van die inwendige dryfmiddels bereken teen 0,0283 kubieke meter (een kubieke voet) per persoon wat nodig is om die getal addisionele persone te dra wat die reddingsboot sou kon inneem indien die motor en sy toebehore en, indien aangebring, die soeklig en radiotelegraafinstallasie en hul toebehore verwyder sou word.

REGULASIE 10

Spesifikasie van ander meganies aangedrewe reddingsbote as motorreddingsbote

'n Ander meganies aangedrewe reddingsboot as 'n motorreddingsboot moet aan die volgende voorwaardes voldoen:

(a) Die aandryfinrigting moet van 'n goedgekeurde tipe wees en moet voldoende krag hê om die reddingsboot, wanneer hy te water gelaat is, in staat te stel om geredelik vry van die skip se kant af weg te kom en om in ongunstige weersomstandighede koers te hou. Indien die inrigting met die hand bedien word, moet dit deur persone ongeoefen in die gebruik daarvan bedien kan word en moet dit ook bedien kan word wanneer die reddingsboot vol water is.

(b) 'n Toestel moet aangebring word deur middel waarvan die roerganger die reddingsboot te eniger tyd kan laat tru terwyl die aandryfinrigting in werking is.

(c) Die volume van die inwendige dryfvermoë van 'n ander meganies aangedrewe reddingsboot as 'n motorreddingsboot moet vergroot word om vir die gewig van die aandryfinrigting te vergoed.

REGULASIE 11

Uitrusting van reddingsbote

(a) Die normale uitrusting van elke reddingsboot moet uit die volgende bestaan:

(i) Een drywende roeispaan per roeibank, twee orige drywende roeispane en 'n drywende stuurspaan; 'n anderhalf stel roeipenne of -mikke wat deur middel van 'n tralierеep of ketting aan die reddingsboot bevestig is; 'n bootshaak;

sufficient fuel for 24 hours continuous operation at the speed specified in subparagraph (iii) of this paragraph shall be provided.

(ii) The engine and its accessories shall be suitably enclosed to ensure operation under adverse weather conditions, and the engine casing shall be fire-resisting. Provision shall be made for going astern.

(iii) The speed ahead in smooth water when loaded with its full complement of persons and equipment shall be—

(1) in the case of motor lifeboats required by Regulation 8 of this Chapter to be carried in passenger ships, tankers, ships employed as whale factory ships, ships employed as fish processing or canning factory ships and ships engaged in the carriage of persons employed in the whaling, fish processing or canning industries, at least six knots;

(2) in the case of any other motor lifeboats, at least four knots.

(b) The volume of the internal buoyancy appliances of a motor lifeboat shall be increased above that required by Regulation 5 of this Chapter by the amount, if any, by which the volume of the internal buoyancy appliances required to support the engine and its accessories, and, if fitted, the searchlight and radiotelegraph installation and their accessories, exceeds the volume of the internal buoyancy appliances required, at the rate of 0,0283 cubic metres (one cubic foot) per person, to support the additional persons which the lifeboat could accommodate if the motor and its accessories, and, if fitted, the searchlight and radiotelegraph installation and their accessories, were removed.

REGULATION 10

Specification of mechanically propelled lifeboats other than motor lifeboats

A mechanically propelled lifeboat, other than a motor lifeboat, shall comply with the following conditions:

(a) The propelling gear shall be of an approved type and shall have sufficient power to enable the lifeboat to be readily cleared from the ship's side when launched and to be able to hold course under adverse weather conditions. If the gear is manually operated it shall be capable of being worked by persons untrained in its use and shall be capable of being operated when the lifeboat is flooded.

(b) A device shall be fitted by means of which the helmsman can cause the lifeboat to go astern at any time when the propelling gear is in operation.

(c) The volume of the internal buoyancy of a mechanically propelled lifeboat, other than a motor lifeboat, shall be increased to compensate for the weight of the propelling gear.

REGULATION 11

Equipment of lifeboats

(a) The normal equipment of every lifeboat shall consist of—

(i) a single banked complement of buoyant oars, two spare buoyant oars, and a buoyant steering oar; one set and a half of thole pins or crutches, attached to the lifeboat by lanyard or chain; a boat hook;

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(ii) vir elke propgat twee proppe (proppe word nie vereis wanneer behoorlike outomatiese kleppe aangebring is nie) wat deur middel van tralierepe of kettings aan die reddingsboot bevestig is; 'n hoosvat, en twee emmers van goedgekeurde materiaal;

(iii) 'n roer wat aan die reddingsboot bevestig is en 'n roerpen;

(iv) twee handbyle, een aan elke ent van die reddingsboot;

(v) 'n lamp met genoeg olie vir 12 uur; twee dosies geskikte vuurhoutjies in 'n waterdigte houer;

(vi) 'n mas of maste, met gegalvaniseerde draadstae tesame met seile (oranjekleurig);

(vii) 'n doeltreffende kompas in 'n kompashuis wat verlig of met 'n geskikte middel vir verligting toegerus moet wees;

(viii) 'n reddingslyn wat buite-om die reddingsboot vasgestrop is;

(ix) 'n see-anker van goedgekeurde grootte;

(x) twee vanglyne wat lank genoeg is en waarvan een met strop en knewel aan die voorent van die reddingsboot bevestig moet word sodat hy losgemaak kan word, terwyl die ander stewig aan die voorstewe van die reddingsboot bevestig moet word en vir gebruik gereed moet wees;

(xi) 'n houer met vier en 'n half liter (1 gelling) plantaardige, vis- of dierlike olie daarin. Die vat moet so vervaardig wees dat die olie maklik op die water versprei kan word en moet so ingerig wees dat hy aan die see-anker vasgemaak kan word;

(xii) vir elke persoon wat die reddingsboot gesertifiseer is om te dra, 'n voedselrantsoen vasgestel deur die Administrasie en hierdie voedsel moet gehou word in lugdigte houers wat in 'n waterdigte houer gebêre moet word;

(xiii) waterdigte houers wat drie liter (6 pinte) vars water bevat vir elke persoon wat die reddingsboot gesertifiseer is om te dra, of waterdigte houers wat twee liter (4 pinte) vars water vir elke persoon bevat, tesame met 'n goedgekeurde ontsoutingstoestel wat een liter (2 pinte) drinkwater per persoon kan verskaf; 'n roesvrye skepding aan 'n lyntjie; 'n roesvrye maatbeker vir drinkdoeleindes;

(xiv) vier valskermfakkels van 'n goedgekeurde tipe wat in staat is om op 'n groot hoogte 'n helder rooi lig te gee; ses handfakkels van 'n goedgekeurde tipe wat 'n helder rooi lig gee;

(xv) twee drywende rooksinjale van 'n goedgekeurde tipe (vir gebruik gedurende die dag) wat in staat is om 'n hoeveelheid oranjekleuringe rook af te gee;

(xvi) goedgekeurde middels in die vorm van kimkiele of kielrelings om persone in staat te stel om aan die boot vas te klou ingeval hy omslaan, asook gryptoue wat van dolboord na dolboord onder die kiel bevestig is, of ander goedgekeurde middels;

(xvii) 'n goedgekeurde noodhulpuitrusting in 'n waterdigte kissie;

(xviii) 'n waterdigte elektriese flislig wat geskik is vir die gee van seine in die Morsekode, tesame met een reserwe-stel batterye en een reserwe-gloeilampie in 'n waterdigte houer;

(xix) 'n spieël van 'n goedgekeurde tipe om seine gedurende die dag te gee;

(xx) 'n groot knipmes wat toegerus is met 'n bliksnyer wat met 'n lyn aan die boot bevestig gehou moet word;

(xxi) twee ligte drywende werplyne;

(xxii) 'n handpomp van 'n goedgekeurde tipe;

(xxiii) 'n geskikte toesluitkissie vir die opberging van klein uitrustingsartikels.

(ii) two plugs for each plug hole (plugs are not required when proper automatic valves are fitted) attached to the lifeboat by lanyards or chains; a baler, and two buckets of approved material;

(iii) a rudder attached to the lifeboat and a tiller;

(iv) two hatchets, one at each end of the lifeboat;

(v) a lamp, with oil sufficient for 12 hours; two boxes of suitable matches in a watertight container;

(vi) a mast or masts, with galvanized wire stays together with sails (coloured orange);

(vii) an efficient compass in binnacle, to be luminised or fitted with suitable means of illumination;

(viii) a lifeline becketed round the outside of the lifeboat;

(ix) a sea-anchor of approved size;

(x) two painters of sufficient length. One shall be secured to the forward end of the lifeboat with strop and toggle so that it can be released, and the other shall be firmly secured to the stem of the lifeboat and be ready for use;

(xi) a vessel containing 4½ litres (1 gallon) of vegetable, fish or animal oil. The vessel shall be so constructed that the oil can be easily distributed on the water, and so arranged that it can be attached to the sea-anchor;

(xii) a food ration, determined by the Administration, for each person the lifeboat is certified to carry. These rations shall be kept in airtight receptacles which are to be stowed in a watertight container;

(xiii) watertight receptacles containing 3 litres (6 pints) of fresh water for each person the lifeboat is certified to carry, or watertight receptacles containing 2 litres (4 pints) of fresh water for each person together with an approved de-salting apparatus capable of providing 1 litre (2 pints) of drinking water per person; a rustproof dipper with lanyard; a rustproof graduated drinking vessel;

(xiv) four parachute signals of approved type capable of giving a bright red light at a high altitude; six hand flares of an approved type giving a bright red light;

(xv) two buoyant smoke signals of an approved type (for day-time use) capable of giving off a volume of orange-coloured smoke;

(xvi) approved means to enable persons to cling to the boat should it be upturned, in the form of bilge keels or keel rails, together with grab lines secured from gunwale to gunwale under the keel, or other approved arrangements;

(xvii) an approved first-aid outfit in a watertight case;

(xviii) a waterproof electric torch suitable for signalling in the Morse Code together with one spare set of batteries and one spare bulb in a waterproof container;

(xix) a daylight-signalling mirror of an approved type;

(xx) a jack-knife fitted with a tin-opener to be kept attached to the boat with a lanyard;

(xxi) two light buoyant heaving lines;

(xxii) a manual pump of an approved type;

(xxiii) a suitable locker for stowage of small items of equipment;

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(xxiv) een fluitjie of ekwivalente middel om 'n hoorbare sein te gee;

(xxv) een stel visgerei;

(xxvi) een goedgekeurde bedekking met 'n hoogs sigbare kleur en in staat om die insittendes teen besering as gevolg van blootstelling te beskerm; en

(xxvii) een eksemplaar van die geïllustreerde tabel van reddingseine vermeld in Regulasie 16 van Hoofstuk V.

(b) In die geval van skepe wat gebruik word op reise van so 'n duur dat die items aangegee in subparagrawe (vi), (xii), (xix), (xx) en (xxv) van paragraaf (a) van hierdie Regulasie na die mening van die Administrasie onnodig is, kan die Administrasie toelaat dat daar van hulle afgesien word.

(c) Nieteenstaande die bepalings van paragraaf (a) van hierdie Regulasie hoef motorreddingsbote of ander goedgekeurde meganies aangedrewe reddingsbote nie 'n mas of seile of meer as die helfte van die volle getal roeispane aan boord te hê nie, maar hulle moet twee boothake aan boord hê.

(d) Alle reddingsbote moet toegerus wees met geskikte middels om persone wat in die water is, in staat te stel om in die reddingsboot te klim.

(e) Elke motorreddingsboot moet aan boord 'n goedgekeurde tipe draagbare brandblusuitrusting hê wat skuim of ander geskikte stof vir die blus van oliebrande kan uitlaat.

REGULASIE 12

Bevestiging van reddingsbootuitrusting

Alle items reddingsbootuitrusting, behalwe die bootshaak wat vir wegkeerdoeleindes los gehou moet word, moet paslik binne die reddingsboot bevestig word. Die vasbindwerk moet op so 'n wyse uitgevoer word dat die veiligheid van die uitrusting verseker word en die gebruik van die hyshake nie belemmer of vinnige inskeping verhinder sal word nie. Alle items reddingsbootuitrusting moet so klein en lig as moontlik wees en moet in geskikte en kompakte vorm verpak wees.

REGULASIE 13

Draagbare radio-apparaat vir reddingsvaartuie

(a) Aan boord van alle skepe behalwe skepe waarop daar aan elke kant van die skip 'n motorreddingsboot is wat toegerus is met 'n radiotelegraafinstallasie wat aan die bepalings van Regulasie 14 van hierdie Hoofstuk en van Regulasie 13 van Hoofstuk IV voldoen, moet daar vir reddingsvaartuie goedgekeurde draagbare radioapparaat wees wat aan die vereistes uiteengesit in Regulasie 14 van Hoofstuk IV voldoen. Al hierdie uitrusting moet by mekaar gehou word in die kaartkamer of ander geskikte plek, gereed om in 'n noodgeval na die een of die ander reddingsboot geneem te word. In die geval van tenkskepe van 3 000 ton bruto tonnemaat en meer waarop reddingsbote midskeeps en agterskeeps aangebring is, moet hierdie uitrusting egter gehou word op 'n geskikte plek naby die reddingsbote wat die verste van die skip se hoofsender verwyder is.

(b) In die geval van skepe wat gebruik word op reise van so 'n duur dat draagbare radio-apparaat vir reddingsvaartuie na die mening van die Administrasie onnodig is, kan die Administrasie toelaat dat daar van sulke uitrusting afgesien word.

(xxiv) one whistle or equivalent sound signal;

(xxv) one set of fishing tackle;

(xxvi) one approved cover of a highly visible colour capable of protecting the occupants against injury by exposure; and

(xxvii) one copy of the illustrated table of life-saving signals referred to in Regulation 16 of Chapter V.

(b) In the case of ships engaged on voyages of such duration that in the opinion of the Administration the items specified in subparagraphs (vi), (xii), (xix), (xx) and (xxv) of paragraph (a) of this Regulation are unnecessary, the Administration may allow them to be dispensed with.

(c) Notwithstanding the provisions of paragraph (a) of this Regulation, motor lifeboats or other approved mechanically propelled lifeboats need not carry a mast or sails or more than half the complement of oars, but they shall carry two boat hooks.

(d) All lifeboats shall be fitted with suitable means to enable persons in the water to climb into the lifeboat.

(e) Every motor lifeboat shall carry portable fire-extinguishing equipment of an approved type capable of discharging froth or other suitable substance for extinguishing oil fires.

REGULATION 12

Security of lifeboat equipment

All items of lifeboat equipment, with the exception of the boat hook which shall be kept free for fending off purposes, shall be suitably secured within the lifeboat. The lashing shall be carried out in such a manner as to ensure the security of the equipment and so as not to interfere with the lifting hooks or to prevent ready embarkation. All items of lifeboat equipment shall be as small and light in weight as possible and shall be packed in suitable and compact form.

REGULATION 13

Portable radio apparatus for survival craft

(a) An approved portable radio apparatus for survival craft complying with the requirements set out in Regulation 14 of Chapter IV shall be carried in all ships except those on which there is carried on each side of the ship a motor lifeboat fitted with a radiotelegraph installation complying with the provisions of Regulation 14 of this Chapter and of Regulation 13 of Chapter IV. All this equipment shall be kept together in the chartroom or other suitable place ready to be moved to one or other of the lifeboats in the event of an emergency. However, in tankers of 3 000 tons gross tonnage and upwards in which lifeboats are fitted amidships and aft this equipment shall be kept in a suitable place in the vicinity of those lifeboats which are furthest away from the ship's main transmitter.

(b) In the case of ships engaged on voyages of such duration that in the opinion of the Administration portable radio apparatus for survival craft is unnessary, the Administration may allow such equipment to be dispensed with.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 14

Radio-apparaat en soekligte in motorreddingsbote

(a) (i) Wanneer daar aan boord van 'n passasierskip gebruik op ander internasionale reise as kort internasionale reise, 'n skip gebruik as 'n walvisfabriekskip, 'n skip gebruik as 'n visverwerkings- of visinmaakfabriekskip of 'n skip gebruik vir die vervoer van persone werksaam in die walvis-, visverwerkings- of visinmaaknywerhede, altesaam meer as 199 maar minder as 1 500 persone is, moet 'n radiotelegraafapparaat wat aan die vereistes uiteengesit in hierdie regulasie en in Regulasie 13 van Hoofstuk IV voldoen, aangebring word in minstens een van die motorreddingsbote wat daar ooreenkomstig Regulasie 8 van hierdie Hoofstuk aan boord van daardie skip moet wees.

(ii) Wanneer daar aan boord van so 'n skip altesaam 1 500 of meer persone is, moet so 'n radiotelegraafapparaat aangebring word in elke motorreddingsboot wat daar ooreenkomstig Regulasie 8 van hierdie Hoofstuk aan boord van daardie skip moet wees.

(b) Die radio-apparaat moet geïnstalleer word in 'n kajuit wat groot genoeg is om sowel die uitrusting as die persoon wat dit gebruik, te huisves.

(c) Die inrigtings moet sodanig wees dat die doeltreffende werking van die sender en ontvanger nie belemmer sal word deur die enjin terwyl dié loop nie, ongeag of 'n battery gelaai word of nie.

(d) Die radiobattery mag nie gebruik word om 'n enjinaansitmotor of onstekingstelsel van krag te voorsien nie.

(e) Die enjin van die motorreddingsboot moet toegerus word met 'n dinamo vir die herlaai van die radiobattery en vir ander dienste.

(f) 'n Soeklig moet aangebring word in elke motorreddingsboot wat ooreenkomstig paragraaf (a) van Regulasie 8 van hierdie Hoofstuk aan boord moet wees van passasierskepe en ooreenkomstig paragraaf (c) van daardie Regulasie aan boord moet wees van skepe gebruik as walvisfabriekskepe, visverwerkings- of visinmaakfabriekskepe en skepe gebruik vir die vervoer van persone werksaam in die walvis-, visverwerkings- of vismaaknywerhede.

(g) Die soeklig moet insluit 'n lamp van minstens 80 watt, 'n doeltreffende reflektor en 'n kragbron wat 'n voorwerp van 'n ligte kleur en 'n breedte van sowat 18 meter (60 voet) of 'n afstand van 180 meter (200 tree) altesaam ses uur lank doeltreffend sal verlig, en moet in staat wees om minstens drie uur aaneen te werk.

REGULASIE 15

Vereistes vir opblaasbare reddingsvlotte

(a) Elke opblaasbare reddingsvlot moet só gebou wees dat hy in 'n seegang stabiel sal wees wanneer hy ten volle opgeblaas is en met sy bedekking boontoe dryf.

(b) Die reddingsvlot moet só gebou wees dat nog die reddingsvlot nòg sy uitrusting beskadig sal word indien hy van 'n hoogte van 18 meter (60 voet) in die water laat val word. Indien die vlot aanboord gestu word op 'n hoogte bo watervlak van meer as 18 meter (60 voet) moet dit van 'n tipe wees wat onderwerp is aan 'n val-toets vanaf 'n hoogte gelykstaande aan die hoogte wat dit gestu sal word.

(c) Die konstruksie van die reddingsvlot moet 'n bedekking insluit wat outomaties in posisie kom wanneer die reddingsvlot opgeblaas word. Hierdie bedekking moet die insittendes kan beskerm teen besering

REGULATION 14

Radio apparatus and searchlights in motor lifeboats

(a) (i) Where the total number of persons on board a passenger ship engaged on international voyages which are not short international voyages, a ship employed as a whale factory ship, a ship employed as a fish processing or canning factory ship or a ship engaged in the carriage of persons employed in the whaling, fish processing or canning industries, is more than 199 but less than 1 500, a radiotelegraph apparatus complying with the requirements set out in this Regulation and in Regulation 13 of Chapter IV shall be fitted in at least one of the motor lifeboats required under Regulation 8 of this Chapter to be carried in that ship.

(ii) Where the total number of persons on board such a ship is 1 500 or more, such a radiotelegraph apparatus shall be fitted in every motor lifeboat required under Regulation 8 of this Chapter to be carried in that ship.

(b) The radio apparatus shall be installed in a cabin large enough to accommodate both the equipment and the person using it.

(c) The arrangements shall be such that the efficient operation of the transmitter and receiver shall not be interfered with by the engine while it is running whether a battery is on charge or not.

(d) The radio battery shall not be used to supply power to any engine starting motor or ignition system.

(e) The motor lifeboat engine shall be fitted with a dynamo for recharging the radio battery, and for other services.

(f) A searchlight shall be fitted in each motor lifeboat required to be carried under paragraph (a) of Regulation 8 of this Chapter in passenger ships and under paragraph (c) of that Regulation in ships employed as whale factory ships, fish processing or canning factory ships and ships engaged in the carriage of persons employed in the whaling, fish processing or canning industries.

(g) The searchlight shall include a lamp of at least 80 watts, an efficient reflector and a source of power which will give effective illumination of a light-coloured object having a width of about 18 metres (60 feet) at a distance of 180 metres (200 yards) for a total period of six hours and shall be capable of working for at least three hours continuously.

REGULATION 15

Requirements for inflatable liferafts

(a) Every inflatable liferaft shall be so constructed that, when fully inflated and floating with the cover uppermost, it shall be stable in a seaway.

(b) The liferaft shall be so constructed that if it is dropped into the water from a height of 18 metres (60 feet) neither the liferaft nor its equipment will be damaged. If the raft is to be stowed on the ship at a height above the water of more than 18 metres (60 feet), it shall be of a type which has been satisfactorily drop-tested from a height at least equal to the height at which it is to be stowed.

(c) The construction of the liferaft shall include a cover which shall automatically be set in place when the liferaft is inflated. This cover shall be capable of protecting the occupants against injury from exposure,

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

as gevolg van blootstelling, en middels moet verskaf word om reënwater op te vang. Bo-op die bedekking moet 'n lamp aangebring word wat sy lig uit 'n seegeaktiveerde sel verkry, en 'n soortgelyke lamp moet ook binnekant die reddingsvlot aangebring word. Die bedekking van die reddingsvlot moet van 'n hoogs sigbare kleur wees.

(d) Die reddingsvlot moet toegerus wees met 'n vanglyn en met 'n lyn wat buite-om die vlot veilig vasgestrop is. 'n Reddingslyn moet ook binne-om die reddingsvlot aangebring word.

(e) Die reddingsvlot moet geredelik deur een persoon regop gedraai kan word indien hy in 'n omgekeerde posisie opblaas.

(f) Die reddingsvlot moet by elke opening toegerus wees met doeltreffende middels om persone wat in die water is, in staat te stel om aan boord te klim.

(g) Die reddingsvlot moet gehou word in 'n ransel of ander houer wat so gemaak is dat dit strawwe gebruik kan weerstaan in omstandighede wat op see teëgekom word. Die reddingsvlot in sy ransel of ander houer moet inherente dryfvermoë hê.

(h) Die dryfvermoë van die reddingsvlot moet sodanig ingerig word dat daar deur 'n verdeling in 'n gelyke getal afsonderlike afdelings, waarvan die helfte in staat moet wees om die getal persone wat die reddingsvlot toegelaat is om te bevat, bo die water te hou, of deur ander ewe doeltreffende middels verseker word dat daar 'n redelike dryfvermoëgrens is indien die reddingsvlot beskadig sou word of gedeeltelik nie sou opblaas nie.

(i) Die totale gewig van die reddingsvlot, tesame met sy ransel of ander houer en sy uitrusting, moet hoogstens 180 kilogram (400 lb.) wees.

(j) Die getal persone wat 'n opblaasbare reddingsvlot mag toegelaat word om te bevat, moet gelyk wees aan—

(i) die grootste heelgetal wat verkry word deur die volume van die hoofdryfbuise (wat vir hierdie doel nie die boë of die dwarsbank of -banke, as daar aangebring is, insluit nie) wanneer hulle opgeblaas is, deur 96 te deel wanneer die volume in kubieke desimeter gemeet word (of deur 3,4 wanneer die volume in kubieke voet gemeet word); of

(ii) die grootste heelgetal wat verkry word deur die oppervlakte van die vloer (wat vir hierdie doel die dwarsbank of -banke, as daar aangebring is, kan insluit) van die reddingsvlot wanneer dit opgeblaas is, met 3,720 te deel wanneer die oppervlakte in vierkante sentimeter gemeet word (of deur 4 wanneer die oppervlakte in vierkante voet gemeet word), na gelang van watter getal die kleinste is.

(k) Die vloer van die reddingsvlot moet waterdig wees en moet voldoende teen koue geïsoleer kan word.

(l) Die reddingsvlot moet opgeblaas word met 'n gas wat nie vir die insittendes skadelik sal wees nie en die opblasing moet outomaties bewerkstellig word deur 'n tou te trek of deur 'n ander metode wat net so eenvoudig en doeltreffend is. Middels moet verskaf word waardeur die byvullingspomp of blaasbalk wat by Regulasie 17 van hierdie Hoofstuk vereis word, gebruik kan word om die druk te handhaaf.

(m) Die reddingsvlot moet van goedgekeurde materiaal en konstruksie wees en moet só gemaak wees dat hy 30 dae lank op see in alle seetoestande teen blootstelling bestand sal wees.

and means shall be provided for collecting rain. The top of the cover shall be fitted with a lamp which derives its luminosity from a sea-activated cell and a similar lamp shall also be fitted inside the liferaft. The cover of the liferaft shall be of a highly visible colour.

(d) The liferaft shall be fitted with a painter and shall have a line securely becketed round the outside. A lifeline shall also be fitted around the inside of the liferaft.

(e) The liferaft shall be capable of being readily righted by one person if it inflates in an inverted position.

(f) The liferaft shall be fitted at each opening with efficient means to enable persons in the water to climb on board.

(g) The liferaft shall be contained in a valise or other container so constructed as to be capable of withstanding hard wear under conditions met with at sea. The liferaft in its valise or other container shall be inherently buoyant.

(h) The buoyancy of the liferaft shall be so arranged as to ensure by a division into an even number of separate compartments, half of which shall be capable of supporting out of the water the number of persons which the liferaft is permitted to accommodate, or by some other equally efficient means, that there is a reasonable margin of buoyancy if the raft is damaged or partially fails to inflate.

(i) The total weight of the liferaft, its valise or other container and its equipment shall not exceed 180 kilogrammes (400 lbs.).

(j) The number of persons which an inflatable liferaft shall be permitted to accommodate shall be equal to—

(i) the greatest whole number obtained by dividing by 96 the volume, measured in cubic decimetres (or by 3,4 the volume, measured in cubic feet) of the main buoyancy tubes (which for this purpose shall include neither the arches nor the thwart or thwarts if fitted) when inflated; or

(ii) the greatest whole number obtained by dividing by 3,720 the area measured in square centimetres (or by 4 the area, measured in square feet) of the floor (which for this purpose may include the thwart or thwarts if fitted) of the liferaft when inflated whichever number shall be the less.

(k) The floor of the liferaft shall be waterproof and shall be capable of being sufficiently insulated against cold.

(l) The liferaft shall be inflated by a gas which is not injurious to the occupants and the inflation shall take place automatically either on the pulling of a line or by some other equally simple and efficient method. Means shall be provided whereby the topping-up pump or bellows required by Regulation 17 of this Chapter may be used to maintain pressure.

(m) The liferaft shall be of approved material and construction, and shall be so constructed as to be capable of withstanding exposure for 30 days afloat in all sea conditions.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(n) Geen reddingsvlot met 'n draagvermoë van minder as ses persone volgens paragraaf (j) van hierdie Regulasie mag goedgekeur word nie. Die maksimum getal persone, wat volgens daardie paragraaf bereken is en waarvoor 'n opblaasbare reddingsvlot goedgekeur kan word, word aan die goeddunke van die Administrasie oorgelaat maar mag nooit 25 te bowe gaan nie.

(o) Die reddingsvlot moet dwarsdeur 'n temperatuurspeling van 66 °C tot minus 30 °C (150 °F tot minus 22 °F) bruikbaar wees.

(p) (i) Die reddingsvlot moet só gebêre word dat hy in 'n noodgeval geredelik beskikbaar sal wees. Dit moet op 'n wyse gestu word wat dit in staat stel om vry van die stuwing te dryf, op te blaas en van die skip los te breek ingeval hy sink.

(ii) As daar woeltoue gebruik word, moet hulle voorsien wees van 'n outomatiese ontkoppelingstelsel van 'n hidrostatiese of ekwivalente aard wat deur die Administrasie goedgekeur is.

(iii) Die reddingsvlot wat ingevolge paragraaf (c) van Regulasie 35 van hierdie Hoofstuk vereis word, kan stewig bevestig word.

(q) Die reddingsvlot moet toegerus wees met sulke inrigtings dat hy geredelik gesleep kan word.

REGULASIE 16

Vereistes vir onbuigsame reddingsvlotte

(a) Elke onbuigsame reddingsvlot moet só gebou wees dat nòg die reddingsvlot nòg sy uitrusting beskadig sal word wanneer hy vanaf sy stuwingsplek in die water laat val word.

(b) Die dekoppervlakte van die reddingsvlot moet geleë wees binne dié gedeelte van die reddingsvlot wat beskerming aan sy insittende verleen. Die oppervlakte van dié dek moet minstens 0,3720 vierkante meter (4 vierkante voet) wees vir elke persoon wat die reddingsvlot mag dra. Die aard van die dek moet sodanig wees dat dit vir sover moontlik die binnedring van water sal voorkom en dit moet die insittendes doeltreffend bo die water kan hou.

(c) Die reddingsvlot moet toegerus wees met 'n bedekking of ander gelykwaardige inrigting wat 'n hoogs sigbare kleur het en die insittendes kan beskerm teen besering as gevolg van blootstelling ongeag watter kant van die reddingsvlot bo dryf.

(d) Die uitrusting van die reddingsvlot moet só gebêre wees dat dit geredelik beskikbaar is ongeag watter kant van die reddingsvlot bo dryf.

(e) Die totale gewig van 'n reddingsvlot en sy uitrusting op passasierskepe mag nie 180 kilogram (400 lb.) te bowe gaan nie. Reddingsvlotte op vragskepe kan meer as 180 kilogram (400 lb.) weeg indien hulle van albei kante van die skip te water gelaat word of indien middels verskaf is om hulle meganies in die water te plaas.

(f) Die reddingsvlot moet te alle tye doelmatig en stabiel wees wanneer hy met enige kant na bo dryf.

(g) Die reddingsvlot moet vir elke persoon wat hy mag dra, lugkaste of gelykwaardige dryfmiddels van minstens 96 kubieke desimeter (3,4 kubieke voet) hê en dié moet so na as moontlik aan die sye van die reddingsvlot geplaas word.

(h) Die reddingsvlot moet 'n vanglyn aan hom hê, asook 'n reddingslyn wat buite-om hom veilig vasgestrop is. 'n Reddingslyn moet ook binne-om die vlot aangebring word.

(n) No liferaft shall be approved which has a carrying capacity calculated in accordance with paragraph (j) of this Regulation of less than six persons. The maximum number of persons calculated in accordance with that paragraph for which an inflatable liferaft may be approved shall be at the discretion of the Administration, but shall in no case exceed 25.

(o) The liferaft shall be capable of operating throughout a temperature range of 66 °C to minus 30 °C (150 °F to minus 22 °F).

(p) (i) The liferaft shall be so stowed as to be readily available in case of emergency. It shall be stowed in such a manner as to permit it to float free from its stowage, inflate and break free from the vessel in the event of sinking.

(ii) If used, lashings shall be fitted with an automatic release system of a hydrostatic or equivalent nature approved by the Administration.

(iii) The liferaft required by paragraph (c) of Regulation 35 of this Chapter may be securely fastened.

(q) The liferaft shall be fitted with arrangements enabling it to be readily towed.

REGULATION 16

Requirements for rigid liferafts

(a) Every rigid liferaft shall be so constructed that if it is dropped into the water from its stowed position neither the liferaft nor its equipment will be damaged.

(b) The deck area of the liferaft shall be situated within that part of the liferaft which affords protection to its occupants. The area of that deck shall be at least 0,3720 square metres (4 square feet) for every person the liferaft is permitted to carry. The nature of the deck shall be such as to prevent so far as practicable the ingress of water and it shall effectively support the occupants out of the water.

(c) The liferaft shall be fitted with a cover or equivalent arrangement of a highly visible colour, which shall be capable of protecting the occupants against injury from exposure whichever way up the liferaft is floating.

(d) The equipment of the liferaft shall be so stowed as to be readily available whichever way up the liferaft is floating.

(e) The total weight of a liferaft and its equipment carried in passenger ships shall not exceed 180 kilogrammes (400 lbs.). Liferafts carried in cargo ships may exceed 180 kilogrammes (400 lbs.) in weight if they are capable of being launched from both sides of the ship or if there are provided means for putting them into the water mechanically.

(f) The liferaft must at all times be effective and stable when floating either way up.

(g) The liferaft shall have at least 96 cubic decimetres (3,4 cubic feet) of air cases or equivalent buoyancy for each person it is permitted to carry which must be placed as near as possible to the sides of the raft.

(h) The liferaft shall have a painter attached and a lifeline securely becketed round the outside. A lifeline shall also be fitted around the inside of the raft.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(i) Die reddingsvlot moet by elke opening toegerus wees met doeltreffende middels om persone wat in die water is, in staat te stel om aan boord te klim.

(j) Die reddingsvlot moet so gebou wees dat hy nie deur olie of olieprodukte aangetas sal word nie.

(k) 'n Drywende lig van die elektriese battery-tipe moet met 'n tralierеep aan die reddingsvlot bevestig word.

(l) Die reddingsvlot moet toegerus wees met sulke inrigtings dat hy geredelik gesleep kan word.

(m) Reddingsvlotte moet só gebêre word dat hulle los kan wegdryf indien die skip sink.

REGULASIE 17

Uitrusting van opblaasbare en onbuigsame reddingsvlotte

(a) Die normale uitrusting van elke reddingsvlot moet uit die volgende bestaan:

(i) Een drywende reddingsgooiring aan 'n drywende lyn van minstens 30 meter (100 voet).

(ii) Vir reddingsvlotte wat toegelaat is om hoogstens 12 persone te bevat: een mes en een hoosvat; vir reddingsvlotte wat toegelaat is om 13 of meer persone te bevat: twee messe en twee hoosvate.

(iii) Twee sponse.

(iv) Twee see-ankers, waarvan een blywend aan die reddingsvlot bevestig en een 'n reserwe-anker moet wees.

(v) Twee skepspane.

(vi) Een hersteluitrusting wat geskik is om lekke in dryfafdelings te herstel.

(vii) Een byvullingspomp of blaasbalk, tensy die reddingsvlot aan die vereistes van Regulasie 16 van hierdie hoofstuk voldoen.

(viii) Drie bliksnyers.

(ix) Een goedgekeurde noodhulpuitrusting in 'n waterdigte kissie.

(x) Een roesvrye maatbeker vir drinkdoeleindes.

(xi) Een waterdigte elektriese flitslig wat geskik is vir die gee van seine in die Morsekode, tesame met een reserwe-stel batterye en een reserwe-gloeilampie in 'n waterdigte houer.

(xii) Een spieël om seine gedurende die dag te gee en een fluitjie om seine mee te gee.

(xiii) Twee valskermnoodfakkels van 'n goedgekeurde tipe wat in staat is om op 'n groot hoogte 'n helder rooi lig te gee.

(xiv) Ses handfakkels van 'n goedgekeurde tipe wat in staat is om 'n helder rooi lig te gee.

(xv) Een stel visgerei.

(xvi) Vir elke persoon wat die reddingsvlot mag bevat, 'n voedselrantsoen vasgestel deur die Administrasie.

(xvii) Waterdigte houers wat 1½ liter (3 pinte) varswater bevat vir elke persoon wat die reddingsvlot mag bevat, waarvan 'n ½ liter (1 pint) per persoon vervang kan word deur 'n geskikte ontsoutingstoestel wat ewe veel varswater kan lewer.

(xviii) Vir elke persoon wat die reddingsvlot in staat geag word om te bevat, ses tablette teen seesiekte.

(xix) Voorskrifte oor hoe om in die reddingsvlot aan die lewe te bly.

(xx) Een eksemplaar van die geïllustreerde tabel van reddingseine vermeld in Regulasie 16 van Hoofstuk V.

(b) In die geval van passasierskepe wat gebruik word op kort internasionalereise van só 'n duur dat al die items aangegee in paragraaf (a) na die mening

(i) The liferaft shall be fitted at each opening with efficient means to enable persons in the water to climb on board.

(j) The liferaft shall be so constructed as not to be effected by oil or oil products.

(k) A buoyant light of the electric battery type shall be attached to the liferaft by a lanyard.

(l) The liferaft shall be fitted with arrangements enabling it to be readily towed.

(m) Liferafts shall be so stowed as to float free in the event of the ship sinking.

REGULATION 17

Equipment of inflatable and rigid liferafts

(a) The normal equipment of every liferaft shall consist of—

(i) one buoyant rescue quoit, attached to at least 30 metres (100 feet) of buoyant line;

(ii) for liferafts which are permitted to accommodate not more than 12 persons: one knife and one baler; for liferafts which are permitted to accommodate 13 persons or more: two knives and two balers;

(iii) two sponges;

(iv) two sea-anchors, one permanently attached to the liferaft and one spare;

(v) two paddles;

(vi) one repair outfit capable of repairing punctures in buoyancy compartments.

(vii) one topping-up pump or bellows, unless the liferaft complies with Regulation 16 of this Chapter;

(viii) three tin-openers;

(ix) one approved first-aid outfit in a waterproof case;

(x) one rustproof graduated drinking vessel;

(xi) one waterproof electric torch suitable for signalling in the Morse Code, together with one spare set of batteries and one spare bulb in a waterproof container;

(xii) one daylight-signalling mirror and one signalling whistle;

(xiii) two parachute distress signals of an approved type, capable of giving a bright red light at a high altitude;

(xiv) six hand flares of an approved type, capable of giving a bright red light;

(xv) one set of fishing tackle;

(xvi) a food ration, determined by the Administration, for each person the liferaft is permitted to accommodate;

(xvii) watertight receptacles containing 1½ litres (3 pints) of fresh water for each person the liferaft is permitted to accommodate, of which ½ litre (1 pint) per person may be replaced by a suitable de-salting apparatus capable of producing an equal amount of fresh water;

(xviii) six anti-seasickness tablets for each person the liferaft is deemed fit to accommodate;

(xix) instructions on how to survive in the liferaft; and

(xx) one copy of the illustrated table of life-saving signals referred to in Regulation 16 of Chapter V.

(b) In the case of passenger ships engaged on short international voyages of such duration that in the opinion of the Administration all the items specified in

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

van die Administrasie onnodig is, kan die Administrasie toelaat dat een of meer reddingsvlotte, wat nie minder mag wees nie as een sesde van die getal reddingsvlotte wat aan boord van die skip is, voorsien word van die uitrusting uiteengesit in subparagrawe (i) tot en met (vii), (xi) en (xix) van paragraaf (a) van hierdie regulasie, en van die helfte van die uitrusting uiteengesit in subparagrawe (xiii) en (xiv) van genoemde paragraaf, en dat die res van die reddingsvlotte wat aan boord is, voorsien word van die uitrusting uiteengesit in subparagrawe (i) tot en met (vii) en (xix) van genoemde paragraaf.

REGULASIE 18

Opleiding in die gebruik van reddingsvlotte

Die Administrasie moet vir sover doenlik en redelik stappe doen om te verseker dat bemannings van skepe met reddingsvlotte aan boord, in die tewaterlating en gebruik daarvan opgelei word.

REGULASIE 19

Inskeping in reddingsbote en reddingsvlotte

(a) Geskikte reëlings moet getref word vir inskeping in die reddingsbote en hierdie reëlings moet die volgende insluit:

(i) 'n Leer by elke stel davits om toegang tot die reddingsbote te verleen wanneer hulle op die water is, behalwe dat die Administrasie in die geval van passasierskepe, skepe gebruik as walvisfabriekskepe, skepe gebruik as visverwerkings- of visinmaakfabriekskepe en skepe gebruik vir die vervoer van persone werksaam in die walvis-, visverwerkings- of visinmaaknywerhede kan toelaat dat sodanige lere deur goedgekeurde toestelle vervang word, op voorwaarde dat daar nie minder as een leer aan elke kant van die skip is nie;

(ii) middels om die reddingsbote en hul tewaterlatingstuig te verlig gedurende die voorbereiding vir en tydens die werklike tewaterlatingsproses en ook om die water waarin die reddingsbote neergelaat word te verlig totdat die tewaterlatingsproses voltooi is;

(iii) middels om die passasiers en bemanning te waarsku dat die skip op die punt staan om verlaat te word; en

(iv) middels om te verhoed dat water in die reddingsbote stort.

(b) Geskikte reëlings moet getref word vir inskeping in die reddingsvlotte en hierdie reëlings moet die volgende insluit:

(i) Voldoende lere om inskeping in die reddingsvlotte te vergemaklik wanneer hulle op die water is, behalwe dat die Administrasie in die geval van passasierskepe, skepe gebruik as walvisfabriekskepe, skepe gebruik as visverwerkings- of visinmaakfabriekskepe en skepe gebruik vir die vervoer van persone werksaam in die walvis-, visverwerkings- of visinmaaknywerhede kan toelaat dat sommige van of al sodanige lere deur goedgekeurde toestelle vervang word;

(ii) wanneer daar aan boord reddingsvlotte is waarvoor goedgekeurde tewaterlatingstoestelle verskaf is, middels om daardie reddingsvlotte en tewaterlatingstoestelle te verlig gedurende die voorbereiding vir en tydens die werklike tewaterlatingsproses, en ook om die water waarin daardie reddingsvlotte neergelaat word te verlig totdat die tewaterlatingsproses voltooi is;

(iii) middels vir die verligting van die stuwingsposisie van reddingsvlotte waarvoor goedgekeurde tewaterlatingstoestelle nie verskaf is nie;

paragraph (a) of this Regulation are unnecessary, the Administration may allow one or more liferafts, not being less than one-sixth of the number of liferafts carried in any such ship, to be provided with the equipment specified in subparagraphs (i) to (vii) inclusive, (xi) and (xix) of paragraph (a) of this Regulation, and with one-half of the equipment specified in subparagraphs (xiii) and (xiv) of that paragraph and the remainder of the liferafts carried to be provided with the equipment specified in subparagraphs (i) to (vii) inclusive and (xix) of that paragraph.

REGULATION 18

Training in the use of liferafts

The Administration shall so far as is practicable and reasonable take steps with a view to ensuring that crews of ships in which liferafts are carried are trained in their launching and use.

REGULATION 19

Embarkation into lifeboats and liferafts

(a) Suitable arrangements shall be made for embarkation into the lifeboats, which shall include—

(i) a ladder at each set of davits to afford access to the lifeboats when waterborne, except that in passengerships, ships employed as whale factory ships, ships employed as fish processing or canning factory ships and ships engaged in the carriage of persons employed in the whaling, fish processing or canning industries, the Administration may permit such ladders to be replaced by approved devices provided that there shall not be less than one ladder on each side of the ship;

(ii) means for illuminating the lifeboats and their launching gear during preparation for and the process of launching, and also for illuminating the water into which the lifeboats are launched until the process of launching is completed;

(iii) arrangements for warning the passengers and crew that the ship is about to be abandoned; and

(iv) means for preventing any discharge of water into the lifeboats.

(b) Suitable arrangements shall also be made for embarkation into the liferafts, which shall include—

(i) sufficient ladders to facilitate embarkation into the liferafts when waterborne except that in passenger ships, ships employed as whale factory ships, ships employed as fish processing or canning factory ships, and ships engaged in the carriage of persons employed in the whaling, fish processing or fish canning industries, the Administration may permit the replacement of some or all of such ladders by approved devices;

(ii) where there are carried liferafts for which approved launching devices are provided, means for illuminating those liferafts and launching devices during the preparation for and the process of launching, and also for illuminating the water into which those liferafts are launced until the process of launching is completed;

(iii) means for illuminating the stowage position of liferafts for which approved launching devices are not provided;

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(iv) middels om die passasiers en bemanning te waarsku dat die skip op die punt staan om verlaat te word; en

(v) middels om te voorkom dat daar by vaste tewaterlatingsplekke, met inbegrip van dié onder goedgekeurde tewaterlatingstoestelle, water in reddingsvlotte stort.

REGULASIE 20

Die merk van reddingsbote, reddingsvlotte en drywende toestelle

(a) Die afmetings van 'n reddingsboot en die getal persone wat hy toegelaat is om te dra, moet met duidelike blywende skrif daarop aangedui word. Die naam en registrasie hawe van die skip waaraan die reddingsboot behoort, moet aan albei kante van die boeg geverf word.

(b) Die getal persone moet op dieselfde wyse op drywende toestelle gemerk word.

(c) Die getal persone moet op dieselfde wyse gemerk word op opblaasbare reddingsvlotte en ook op die ransel of houer waarin 'n opblaasbare reddingsvlot gehou word. Elke opblaasbare reddingsvlot moet ook 'n reeksnommer en die naam van die fabrikant ophê sodat die eienaar van die reddingsvlot bepaal kan word.

(d) Elke onbuigsame reddingsvlot moet die naam en registrasiehawe op hê van die skip wat hom aan boord het, asook die getal persone wat hy toegelaat is om te dra.

(e) Op geen reddingsboot, reddingsvlot of drywende toestel mag 'n groter getal persone aangegee word as dié wat ooreenkomstig die bepalings van hierdie hoofstuk verkry is nie.

REGULASIE 21

Spesifikasie van 'n reddingsboei

(a) 'n Reddingsboei moet aan die volgende vereistes voldoen:

(i) Hy moet van soliede kurk of 'n ander ekwivalente materiaal vervaardig wees;

(ii) hy moet in staat wees om 14,5 kilogram (32 lb.) yster 24 uur lank in vars water te dra;

(iii) hy moet nie deur olie of olieprodukte aangetas word nie;

(iv) hy moet van 'n hoogs sigbare kleur wees;

(v) die naam en registrasiehawe van die skip wat hom aan boord het, moet met blokletters op hom aangebring word.

(b) Reddingsboeie wat gevul is met biesies, kurkskaafsels of korrelkurk of enige ander los korrelrige stof, of waarvan die dryfvermoë afhanklik is van lugafdelings wat opgeblaas moet word, is verbode.

(c) Reddingsboeie wat vervaardig is van plastiek of ander sintetiese verbindings moet in staat wees om hul dryfeienskappe en duursaamheid te behou wanneer hulle met seewater of olieprodukte in aanraking kom en onder temperatuur- of klimaatsveranderings wat op reise op die oop see voorkom.

(d) Reddingsboeie moet toegerus wees met veilig geknewelde stroppe. Minstens een reddingsboei aan elke kant van die skip moet toegerus wees met 'n drywende reddingslyn wat minstens 27,5 meter (15 vadems) lank is.

(iv) arrangements for warning the passengers and crew that the ship is about to be abandoned; and

(v) means for preventing any discharge of water into the liferafts at fixed launching positions, including those under approved launching devices.

REGULATION 20

Marking of lifeboats, liferafts and buoyant apparatus

(a) The dimensions of a lifeboat and the number of persons which it is permitted to carry shall be marked on it in clear permanent characters. The name and port of registry of the ship to which the lifeboat belongs shall be painted on each side of the bow.

(b) Buoyant apparatus shall be marked with the number of persons in the same manner.

(c) The number of persons shall be marked in the same manner on inflatable liferafts and also on the valise or container in which the inflatable liferaft is contained. Every inflatable liferaft shall also bear a serial number and the manufacturer's name so that the owner of the liferaft can be ascertained.

(d) Every rigid liferaft shall be marked with the name and port of registry of the ship in which it is carried, and with the number of persons it is permitted to carry.

(e) No lifeboat, liferaft or buoyant apparatus shall be marked for a greater number of persons than that obtained in the manner specified in this Chapter.

REGULATION 21

Specification of a lifebuoy

(a) A lifebuoy shall satisfy the following requirements:

(i) It shall be of solid cork or any other equivalent material;

(ii) it shall be capable of supporting in fresh water for 24 hours at least 14,5 kilogrammes (32 lbs.) of iron;

(iii) it shall not be adversely affected by oil or oil products;

(iv) it shall be of a highly visible colour;

(v) it shall be marked in block letters with the name and port of registry of the ship in which it is carried.

(b) Lifebuoys filled with rushes, cork shavings or granulated cork, or any other loose granulated material, or whose buoyancy depends upon air compartments which require to be inflated, are prohibited.

(c) Lifebuoys made of plastic or other synthetic compounds shall be capable of retaining their buoyant properties and durability in contact with sea water or oil products, or under variations of temperature or climatic changes prevailing in open sea voyages.

(d) Lifebuoys shall be fitted with beckets securely seized. At least one lifebuoy on each side of the ship shall be fitted with a buoyant lifeline of at least 27,5 metres (15 fathoms) in length.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(e) Minstens die helfte van die totale getal reddingsboeie op passasiersskepe maar in geen geval minder as ses nie, en minstens die helfte van die totale getal reddingsboeie op vragskepe moet toegerus wees met doeltreffende selfontbrandende ligte.

(f) Die selfontbrandende ligte wat by paragraaf (e) van hierdie regulasie vereis word, moet sodanig wees dat hulle nie deur water uitgedoof kan word nie. Hulle moet minstens 45 minute lank kan brand en moet 'n lighelderheid van minstens 2 kerskrag in alle rigtings van die boonste hemisfeer hê. Hulle moet saam met die nodige aanhegmiddels gehou word naby die reddingsboeie waarby hulle hoort. Selfontbrandende ligte wat op tenkskepe gebruik word, moet van 'n goedgekeurde elektriese battery-tipe wees.*

(g) Alle reddingsboeie moet so geplaas word dat hulle geredelik vir die persone aan boord bereikbaar sal wees, en minstens twee van die reddingsboeie wat ooreenkomstig paragraaf (e) van hierdie regulasie met selfontbrandende ligte toegerus is, moet ook met 'n doeltreffende selfaktiverende rooksinjaal wat minstens 15 minute lank rook van 'n hoogs sigbare kleur kan voortbring, toegerus wees en vinnig van die navigasiebrug gelos kan word.

(h) Reddingsboeie moet altyd vinnig gelos kan word en moet hoegenaamd nie blywend bevestig wees nie.

REGULASIE 22

Reddingsbaadjies

(a) Skepe moet vir elke persoon aan boord 'n reddingsbaadjie van 'n goedgekeurde tipe hê, en, tensy hierdie reddingsbaadjies vir gebruik deur kinders ingerig kan word, moet daar voldoende reddingsbaadjies wees wat vir kinders geskik is. Elke reddingsbaadjie moet paslik gemerk wees om te wys dat dit deur die Administrasie goedgekeur is.

(b) Benewens die reddingsbaadjies wat by paragraaf (a) van hierdie Regulasie vereis word, moet daar op passasierskepe reddingsbaadjies wees vir 5 persent van die totale getal persone aan boord. Hierdie reddingsbaadjies moet op 'n opvallende plek op die dek bewaar word.

(c) 'n Goedgekeurde reddingsbaadjie moet aan die volgende vereistes voldoen:

(i) Hy moet op behoorlike vakkundige wyse en van behoorlike materiaal vervaardig wees.

(ii) Hy moet ontwerp wees sover doenlik die moontlikheid uit te skakel dat hy verkeerd aangetrek kan word, behalwe dat hy binneste buite gedra moet kan word.

(iii) Hy moet in staat wees om die gesig van 'n uitgeputte of bewustelose persoon uit die water te lig en dit bo te hou met die liggaam skuins agtertoe geleun.

* Die volgende sigbaarheidsafstand van die lig kan in gegewe atmosfeertoestande verwag word.

Atmosferiese deurlatingsfaktor	Weerkundige sigbaarheidsafstand (myl)	Sigbaarheidsafstand van die lig (myl)
0,3	2,4	0,96
0,4	3,3	1,05
0,5	4,3	1,15
0,6	5,8	1,24
0,7	8,4	1,34
0,8	13,4	1,45
0,9	28,9	1,57

(e) In passenger ships not less than one-half of the total number of lifebuoys, and in no case less than six, and in cargo ships at least one-half of the total number of lifebuoys, shall be provided with efficient self-igniting lights.

(f) The self-igniting lights required by paragraph (e) of this Regulation shall be such that they cannot be extinguished by water. They shall be capable of burning for not less than 45 minutes and shall have a luminous intensity of not less than 2 candelas in all directions of the upper hemisphere. The lights shall be kept near the lifebuoys to which they belong, with the necessary means of attachment. Self-igniting lights used in tankers shall be of an approved electric battery type.*

(g) All lifebuoys shall be so placed as to be readily accessible to the persons on board, and at least two of the lifebuoys provided with self-igniting lights in accordance with paragraph (e) of this Regulation shall also be provided with an efficient self-activating smoke signal capable of producing smoke of a highly visible colour for at least 15 minutes, and shall be capable of quick release from the navigating bridge.

(h) Lifebuoys shall always be capable of being rapidly cast loose and shall not be permanently secured in any way.

REGULATION 22

Life-jackets

(a) Ships shall carry for every person on board a life-jacket of an approved type and, in addition, unless these life-jackets can be adapted for use by children, a sufficient number of life-jackets suitable for children. Each life-jacket shall be suitably marked showing that it has been approved by the Administration.

(b) In addition to the life-jackets required by paragraph (a) of this Regulation there shall be carried on passenger ships life-jackets for 5 per cent of the total number of persons on board. These life-jackets shall be stowed in a conspicuous place on deck.

(c) An approved life-jacket shall comply with the following requirements:

(i) It shall be constructed with proper workmanship and materials;

(ii) it shall be so constructed as to eliminate so far as possible all risk of its being put on incorrectly, except that it shall be capable of being worn inside out;

(iii) it shall be capable of lifting the face of an exhausted or unconscious person out of the water and holding it above the water with the body inclined backwards from its vertical position;

* The following ranges of visibilities of the light might be expected in given atmospheric conditions.

Atmospheric transmissivity factor	Meteorological range of visibility (miles)	Range of visibility of the light (miles)
0,3	2,4	0,96
0,4	3,3	1,05
0,5	4,3	1,15
0,6	5,8	1,24
0,7	8,4	1,34
0,8	13,4	1,45
0,9	28,9	1,57

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(iv) Hy moet in staat wees om die liggaam in die water vanuit enige posisie in 'n veilig drywende posisie te draai met die liggaam skuins agtertoe geleun.

(v) Hy moet nie deur olie of olieprodukte nadelig aangetas word nie.

(vi) Hy moet 'n hoogs sigbare kleur hê.

(vii) Hy moet toegerus wees met 'n goedgekeurde fluitjie wat deur middel van 'n koord stewig bevestig is.

(viii) Die dryfvermoë van die reddingsbaadjie wat tot die bogenoemde diens in staat is moet nie met meer as 5 persent daal na 24 uur se onderdompeling in varswater nie.

(d) 'n Reddingsbaadjie waarvan die dryfvermoë afhanklik is van opblasing, kan toegelaat word vir gebruik deur die bemannings van alle skepe behalwe passasierskepe en tenkskepe, op voorwaarde dat—

(i) hy twee afsonderlike opblaasbare lugafdelings het;

(ii) hy sowel meganies as met die mond opgeblaas kan word; en

(iii) hy aan die vereistes van paragraaf (c) van hierdie regulasie voldoen met enige van die twee afdelings afsonderlik opgeblaas.

(e) Reddingsbaadjies moet so geplaas word dat hulle geredelik bereikbaar sal wees en hulle posisie moet duidelik aangedui word.

REGULASIE 23

Lynwerptoestelle

(a) Skepe moet 'n lynwerptoestel van 'n goedgekeurde tipe aan boord hê.

(b) Die toestel moet in staat wees om met redelike akkuraatheid 'n lyn minstens 230 meter (250 tree) ver te werp en moet minstens vier projektiele en vier lyne insluit.

REGULASIE 24

Noodseine van skepe

Skepe moet tot tevredenheid van die Administrasie toegerus wees met middels waardeur daar in die dag en in die nag doeltreffende noodseine gegee kan word, met inbegrip van minstens 12 valskermfakkels wat in staat is om op 'n groot hoogte 'n helder rooi lig te gee.

REGULASIE 25

Monsterrol en noodprosedure

(a) Aan elke lid van die bemanning moet daar spesiale pligte toegewys word wat hy in 'n noodgeval moet onderneem.

(b) Al die spesiale pligte moet in die monsterrol aangedui word, asook veral die pos waarheen elke lid moet gaan en pligte wat hy moet vervul.

(c) Die monsterrol vir elke passasierskip moet in die vorm wees wat die Administrasie goedkeur.

(d) Voordat die skip vertrek moet die monsterrol opgestel word. Afskrifte moet in verskeie dele van die skip en veral in die bemanningskwartiewe opgeplak word.

(e) Die monsterrol moet die pligte aandui wat aan die verskillende lede van die bemanning toegewys is in verband met—

(i) die toemaak van die waterdigte deure, kleppe en toemaakmeganismes van spuigate, asstortkokers en branddeure;

(iv) it shall be capable of turning the body in the water from any position to a safe floating position with the body inclined backwards from its vertical position;

(v) it shall not be adversely affected by oil or oil products;

(vi) it shall be of a highly visible colour;

(vii) it shall be fitted with an approved whistle, firmly secured by a cord;

(viii) the buoyancy of the life-jacket required to provide the foregoing performance shall not be reduced by more than 5 per cent after 24 hours' submergence in fresh water.

(d) A life-jacket, the buoyancy of which depends on inflation, may be permitted for use by the crews of all ships except passenger ships and tankers provided that—

(i) it has two separate inflatable compartments;

(ii) it is capable of being inflated both mechanically and by mouth; and

(iii) it complies with the requirements of paragraph (c) of this Regulation with either compartment inflated separately.

(e) Life-jackets shall be so placed as to be readily accessible and their position shall be plainly indicated.

REGULATION 23

Line-throwing appliances

(a) Ships shall carry a line-throwing appliance of an approved type.

(b) The appliance shall be capable of carrying a line not less than 230 metres (250 yards) with reasonable accuracy, and shall include not less than four projectiles and four lines.

REGULATION 24

Ships' distress signals

Ships shall be provided, to the satisfaction of the Administration, with means of making effective distress signals by day and by night, including at least twelve parachute signals capable of giving a bright red light at a high altitude.

REGULATION 25

Muster list and emergency procedure

(a) Special duties to be undertaken in the event of an emergency shall be allotted to each member of the crew.

(b) The muster list shall show all the special duties and shall indicate, in particular, the station to which each member must go, and the duties that he has to perform.

(c) The muster list for each passenger ship shall be in a form approved by the Administration.

(d) Before the vessel sails, the muster list shall be completed. Copies shall be posted in several parts of the ship, and in particular in the crew's quarters.

(e) The muster list shall show the duties assigned to the different members of the crew in connection with—

(i) the closing of the watertight doors, valves and closing mechanisms of scuppers, ash-shoots and fire doors;

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(ii) die uitrus van reddingsbote (met inbegrip van die draagbare radio-apparaat vir reddingsvaartuie) en die ander reddingstoestelle;

(iii) die tewaterlating van die reddingsbote;

(iv) die algemene gereedmaking van die ander reddingstoestelle;

(v) die aantreding van passasiers; en

(vi) die blus van brand, met inagneming van die skip se brandbeheerplanne.

(f) Die monsterrol moet die onderskeie pligte aandui wat aan die lede van die hofmeesterafdeling ten aansien van die passasiers in die geval van nood toegewys is. Hierdie pligte omvat die volgende:

(i) Waarskuwing van die passasiers;

(ii) toesien dat hulle paslik gekleed is en hul reddingsbaadjies reg aangetrek het;

(iii) byeenbring van passasiers by aantreeposte;

(iv) handhawing van orde in die gange en op die trappe en, in die algemeen, reëling van die bewegings van passasiers; en

(v) versekering dat 'n voorraad komberse na die reddingsbote geneem word.

(g) Die pligte wat op die monsterrol verskyn betreffende brandblussing ingevolge subparagraaf (e) (vi) van hierdie Regulasie, moet besonderhede insluit van—

(i) die bemanning van die blusgeselskappe wat aangewys is om brande te bestry;

(ii) die spesiale pligte wat toegesê is ten opsigte van die gebruik van brandblusapparaat en -inrigtings.

(h) Die monsterrol moet bepaalde seine spesifiseer vir die oproep van al die bemanningslede na hul bootreddingsvlot- en brandweerposte en moet volledige besonderhede van hierdie seine verstrek. Hierdie seine moet gegee word met die fluitjie of sirene en moet, behalwe op passasierskepe op kort internasionale reise en op vragskepe van minder as 45,7 meter (150 voet) lank, aangevul word deur ander seine wat met elektrisiteit werk. Al hierdie seine moet vanaf die brug gegee kan word.

REGULASIE 26

Oefenparades en driloefeninge

(a) (i) Op passasierskepe moet aantredings van die bemanning vir boot- en brandweeroefeninge weekliks gehou word indien dit moontlik is, en so 'n aantreding moet gehou word wanneer 'n passasierskip die laaste vertrekhawe verlaat op 'n internasionale reis wat nie 'n kort internasionale reis is nie.

(ii) Op vragskepe moet 'n aantreding van die bemanning vir boot- en brandweeroefeninge by tussenpose van hoogstens 'n maand plaasvind; met dien verstande dat 'n aantreding van die bemanning vir boot- en brandweeroefeninge binne 24 uur na vertrek uit 'n hawe moet plaasvind indien meer as 25 persent van die bemanning in daardie hawe vervang is.

(iii) By geleentheid van die maandelikse aantreding op vragskepe moet die bote se uitrusting nagegaan word om te verseker dat dit volledig is.

(iv) Die datums waarop aantredings gehou word, moet aangeteken word in sodanige joernaal as wat die Administrasie mag voorskryf en indien daar in enige week (in die geval van passasierskepe) of maand (in die geval van vragskepe) geen aantreding nie of slegs 'n gedeeltelike aantreding gehou word, moet die omstandighede en die omvang van die aantreding opgeteken word. 'n Verslag oor die ondersoek van die bote se uitrusting op vragskepe moet opgeteken word in die

(ii) the equipping of the lifeboats (including the portable radio apparatus for survival craft) and the other life-saving appliances;

(iii) the launching of the lifeboat;

(iv) the general preparation of the other life-saving appliances;

(v) the muster of the passengers; and

(vi) the extinction of fire, having regard to the ship's fire control plans.

(f) The muster list shall show the several duties assigned to the members of the stewards' department in relation to the passengers in case of emergency. These duties shall include—

(i) warning the passengers;

(ii) seeing that they are suitably clad and have put on their life-jackets in a proper manner;

(iii) assembling the passengers at muster stations;

(iv) keeping order in the passages and on the stairways, and, generally, controlling the movements of the passengers; and

(v) ensuring that a supply of blankets is taken to the lifeboats.

(g) The duties shown by the muster list in relation to the extinction of fire pursuant to subparagraph (e) (vi) of this Regulation shall include particulars of—

(i) the manning of the fire parties assigned to deal with fires;

(ii) the special duties assigned in respect of the operation of fire-fighting equipment and installations.

(h) The muster list shall specify definite signals for calling all the crew to their boat, liferaft and fire stations, and shall give full particulars of these signals. These signals shall be made on the whistle or siren and, except on passenger ships on short international voyages and on cargo ships of less than 45,7 metres (150 feet) in length, they shall be supplemented by other signals which shall be electrically operated. All these signals shall be operable from the bridge.

REGULATION 26

Practice musters and drills

(a) (i) In passenger ships, musters of the crew for boat drill and fire drill shall take place weekly when practicable and there shall be such a muster when a passenger ship leaves the final port of departure on an international voyage which is not a short international voyage.

(ii) In cargo ships, a muster of the crew for boat drill and fire drill shall take place at intervals of not more than one month, provided that a muster of the crew for boat drill and fire drill shall take place within 24 hours of leaving a port if more than 25 per cent of the crew have been replaced at that port.

(iii) On the occasion of the monthly muster in cargo ships the boat's equipment shall be examined to ensure that it is complete.

(iv) The date upon which musters are held, and details of any training and drills in fire fighting which are carried out on board shall be recorded in such log book as may be prescribed by the Administration. If in any week (for passenger ships) or month (for cargo ships) no muster or a part muster only is held, an entry shall be made stating the circumstances and extent of the muster held. A report of the examination of the boat's equipment on cargo ships shall be

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

joernaal, wat ook die geleenthede moet aangee waarop die reddingsbote uitgeswaai en neergelaat is ooreenkomstig die bepalings van paragraaf (c) van hierdie regulasie.

(b) Op passasierskepe, behalwe dié wat op kort internasionale reise gebruik word, moet 'n aantreding van die passasiers gehou word binne 24 uur nadat die skip die hawe verlaat het.

(c) Vir elke bootoefening moet 'n ander groep reddingsbote gebruik word en elke reddingsboot moet uitgeswaai en, indien doenlik en redelik, minstens een keer elke vier maande neergelaat word. Die aantredings en inspeksies moet só gereël word dat die bemanning deeglik vertroud is met en geoefen is in die pligte wat hulle moet uitvoer met inbegrip van opdragte betreffende die hantering en bediening van reddingsvlotte wanneer daar sulke vlotte aan boord is.

(d) Die noodsein om passasiers op te roep na aantreeposte, moet bestaan uit sewe of meer opeenvolgende kort stote gevolg deur een lang stoot op die fluitjie of sirene. Hierdie sein moet op passasierskepe, behalwe dié wat op kort internasionale reise gebruik word, aangevul word deur ander seine wat met elektrisiteit werk en vanaf die brug dwarsdeur die skip gegee word. Die betekenis van alle seine rakende passasiers, tesame met noukeurige instruksies oor wat passasiers in 'n noodgeval moet doen, moet duidelik in gepaste tale aangegee word op kaarte wat in die kajuite van passasiers en op prominente plekke in ander passasierskwartiere aangebring moet word.

DEEL B—SLEGS PASSASIERSKEPE

REGULASIE 27

Reddingsbote, reddingsvlotte en drywende toestelle

(a) Passasierskepe moet twee bote aan davits hê en wel een aan elke kant van die skip vir gebruik in 'n noodgeval. Hierdie bote moet van 'n goedgekeurde tipe en hoogstens 8,5 meters (28 voet) lank wees. Hulle kan vir die toepassing van paragrawe (b) en (c) van hierdie Regulasie in berekening gebring word, mits hulle allersins voldoen aan die vereistes wat in hierdie Hoofstuk vir reddingsbote gestel word, en vir die toepassing van Regulasie 8 kan hulle in berekening gebring word mits hulle ook nog geheel en al voldoen aan die vereistes van Regulasie 9 en, waar toepaslik, Regulasie 14 van hierdie Hoofstuk. Hulle moet gereed gehou word vir onmiddellike gebruik terwyl die skip op see is. Op skepe waarop daar aan die vereistes van paragraaf (h) van Regulasie 29 voldoen word deur middel van toestelle wat aan die sye van reddingsbote aangebring is, hoef sulke toestelle nie aangebring te word aan die twee bote wat voorsien word om aan die vereistes van hierdie Regulasie te voldoen nie.

(b) Passasierskepe wat gebruik word op internasionale reise wat nie kort internasionale reise is nie, moet die volgende aan boord hê:

(i) Aan elke kant reddingsbote met so 'n totale inhoud dat hulle die helfte van die totale getal persone aan boord van die skip kan huisves. Met dien verstande dat die Administrasie kan toelaat dat reddingsbote deur reddingsvlotte met dieselfde totale inhoud vervang word op voorwaarde dat daar nooit minder reddingsbote aan elke kant van die skip mag wees as wat genoeg sal wees om 37½ persent van die totale getal persone aan boord te huisves nie.

entered in the log book, which shall also record the occasions on which the lifeboats are swung out and lowered in compliance with paragraph (c) of this Regulation.

(b) In passenger ships, except those engaged on short international voyages, a muster of the passengers shall be held within 24 hours after leaving port.

(c) Different groups of lifeboats shall be used in turn at successive boat drills and every lifeboat shall be swung out and, if practicable and reasonable, lowered at least once every four months. The musters and inspections shall be so arranged that the crew thoroughly understand and are practised in the duties they have to perform, including instructions in the handling and operation of liferafts where these are carried.

(d) The emergency signal for summoning passengers to muster stations shall be a succession of seven or more short blasts followed by one long blast on the whistle or siren. This shall be supplemented in passenger ships, except those engaged on short international voyages, by other signals, which shall be electrically operated, throughout the ship operable from the bridge. The meaning of all signals affecting passengers, with precise instructions on what they are to do in an emergency, shall be clearly stated in appropriate languages on cards posted in their cabins and in conspicuous places in other passenger quarters.

PART B—PASSENGER SHIPS ONLY

REGULATION 27

Lifeboats, liferafts and buoyant apparatus

(a) Passenger ships shall carry two boats attached to davits—one on each side of the ship—for use in an emergency. These boats shall be of an approved type and shall be not more than 8,5 metres (28 feet) in length. They may be counted for the purposes of paragraphs (b) and (c) of this Regulation, provided that they comply fully with the requirements for lifeboats of this Chapter, and for the purposes of Regulation 8 provided that in addition they comply fully with the requirements of Regulation 9 and where appropriate Regulation 14 of this Chapter. They shall be kept ready for immediate use while the ship is at sea. In ships in which the requirements of paragraph (h) of Regulation 29 are met by means of appliances fitted to the sides of the lifeboats, such appliances shall not be required to be fitted to the two boats provided to meet the requirements of this Regulation.

(b) Passenger ships engaged on international voyages which are not short international voyages shall carry—

(i) lifeboats on each side of such aggregate capacity as will accommodate half the total number of persons on board: Provided that the Administration may permit the substitution of lifeboats by liferafts of the same total capacity so however that there shall never be less than sufficient lifeboats on each side of the ship to accommodate 37½ per cent of all on board;

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(ii) Reddingsvlotte met 'n voldoende totale inhoud om 25 persent van die getal persone aan boord, tesame met drywende toestelle vir 3 persent van daardie getal, te huisves: Met dien verstande dat skepe met 'n indelingsfaktor van 0,33 of kleiner toegelaat word om, in die plek van reddingsvlotte vir 25 persent van almal aan boord en drywende toestelle vir 3 persent van almal aan boord, drywende toestelle vir 25 persent van daardie getal aan boord te hê.

(c) (i) 'n Passasierskip wat op kort internasionale reise gebruik word, moet ooreenkomstig sy lengte toegerus word met stelle davits soos aangegee in kolom A van die Tabel in Regulasie 28 van hierdie Hoofstuk. Aan elke stel davits moet daar 'n reddingsboot wees en hierdie reddingsbote moet minstens die minimum inhoud hê wat in kolom C van die tabel vereis word, of, indien kleiner, die inhoud wat nodig is om almal aan boord te huisves.

Met dien verstande dat, wanneer dit volgens die oordeel van die Administrasie prakties ondoenlik of onredelik is om die getal stelle davits wat by kolom A van die tabel in Regulasie 28 vereis word, op 'n skip te plaas wat op kort internasionale reise gebruik word, die Administrasie onder buitegewone omstandighede minder davits kan magtig onder voorbehoud dat hierdie getal nooit kleiner mag wees as die minimum getal wat by kolom B van die Tabel vasgestel is nie, en dat die totale inhoud van die reddingsbote op die skip minstens gelyk sal wees aan die minimum inhoud wat by kolom C vereis word, of, indien kleiner, die inhoud wat nodig is om vir almal aan boord voorsiening te maak.

(ii) Indien die reddingsbote wat aldus verskaf word, nie voldoende is om almal aan boord te bevat nie, moet addisionele reddingsbote onder davits of reddingsvlotte verskaf word sodat die plaasruimte wat deur die reddingsbote en die reddingsvlotte op die skip verskaf word, voldoende vir almal aan boord sal wees.

(iii) Nieteenstaande die bepalings van subparagraaf (ii) van hierdie paragraaf mag die getal persone wat vervoer word op 'n skip wat op kort internasionale reise gebruik word, nie groter wees as die totale inhoud van die reddingsbote wat ooreenkomstig subparagrawe (i) en (ii) van hierdie paragraaf verskaf is nie, tensy die Administrasie meen dat dit deur die verkeersomvang genoodsaak word en selfs dan alleen indien die skip aan die bepalings van paragraaf (d) van Regulasie 1 van Hoofstuk II-1 voldoen.

(iv) Wanneer die Administrasie ooreenkomstig subparagraaf (iii) van hierdie paragraaf toegelaat het dat 'n groter getal persone vervoer word as dié waarvoor die reddingsbote plek het en daarvan oortuig is dat dit in daardie skip ondoenlik is om die reddingsvlotte op te berg wat hy ooreenkomstig subparagraaf (ii) van hierdie paragraaf aan boord het, kan hy 'n vermindering van die getal reddingsbote toelaat.

Met dien verstande dat—

(1) die getal reddingsbote, in die geval van skepe met 'n lengte van 58 meter (190 voet) of meer nooit minder as vier, naamlik twee aan elke kant van die skip, en in die geval van skepe met 'n lengte van minder as 58 meter (190 voet) nooit minder as twee, naamlik een aan elke kant van die skip, mag wees nie; en

(2) die getal reddingsbote en reddingsvlotte altyd voldoende sal wees om die totale getal persone aan boord te bevat.

(ii) liferafts of sufficient aggregate capacity to accommodate 25 per cent of the total number of persons on board, together with buoyant apparatus for 3 per cent of that number: Provided that ships which have a factor of subdivision of 0,33 or less shall be permitted to carry, in lieu of liferafts for 25 per cent of all on board and buoyant apparatus for 3 per cent of all on board, buoyant apparatus for 25 per cent of that number.

(c) (i) A passenger ship engaged on short international voyages shall be provided with sets of davits in accordance with its length as specified in Column A of the Table in Regulation 28 of this Chapter. Each set of davits shall have a lifeboat attached to it and these lifeboats shall provide at least the minimum capacity required by Column C of the Table or the capacity required to provide accommodation for all on board if this is less.

Provided that when in the opinion of the Administration it is impracticable or unreasonable to place on a ship engaged on short international voyages the number of sets of davits required by Column A of the Table in Regulation 28, the Administration may authorize, under exceptional conditions, a smaller number of davits, except that this number shall never be less than the minimum number fixed by Column B of the Table, and that the total capacity of the lifeboats on the ship will be at least equal to the minimum capacity required by Column C or the capacity required to provide for all persons on board if this is less.

(ii) If the lifeboats so provided are not sufficient to accommodate all on board, additional lifeboats under davits or liferafts shall be provided so that the accommodation provided in the lifeboats and the liferafts in the ship shall be sufficient for all on board.

(iii) Notwithstanding the provisions of subparagraph (ii) of this paragraph in any ship engaged on short international voyages the number of persons carried shall not exceed the total capacity of the lifeboats provided in accordance with subparagraphs (i) and (ii) of this paragraph unless the Administration considers that this is necessitated by the volume of traffic and then only if the ship complies with the provisions of paragraph (d) of Regulation 1 of Chapter II-1.

(iv) Where under the provisions of subparagraph (iii) of this paragraph the Administration has permitted the carriage of persons in excess of the lifeboat capacity and is satisfied that it is impracticable in that ship to stow the liferafts carried in accordance with subparagraph (ii) of this paragraph it may permit a reduction in the number of lifeboats.

Provided that—

(1) the number of lifeboats shall, in the case of ships of 58 metres (190 feet) in length and over, never be less than four, two of which shall be carried on each side of the ship, and in the case of ships of less than 58 metres (190 feet) in length, shall never be less than two, one of which shall be carried on each side of the ship; and

(2) the number of lifeboats and liferafts shall always be sufficient to accommodate the total number of persons on board.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(v) Elke passasierskip wat op kort internasionale reise gebruik word moet, benewens die reddingsbote en reddingsvlotte wat ooreenkomstig die bepalings van hierdie paragraaf vereis word, ook nog voldoende reddingsvlotte dra om 10 persent van die totale getal persone te bevat vir wie daar plek is in die reddingsbote wat die skip aan boord het.

(vi) Elke passasierskip wat op kort internasionale reise gebruik word, moet ook drywende toestelle dra vir minstens 5 persent van die totale getal persone aan boord.

(vii) Die Administrasie kan indiwiduele skepe of klasse skepe met sertifikate vir kort internasionale reise toelaat om reise van langer as 600 myl maar hoogstens 1 200 myl, te onderneem indien hulle voldoen aan die bepalings van paragraaf (d) van Regulasie 1 van Hoofstuk II-1, hulle reddingsbote dra wat voorsiening maak vir 75 persent van die persone aan boord en andersins aan die bepalings van hierdie paragraaf voldoen.

REGULASIE 28

Tabel betreffende davits en reddingsbootinhoud vir skepe op kort internasionale reise

Onderstaande tabel verstrek na gelang van die lengte van die skip:

(A) Die minimum getal stelle davits, elkeen met 'n reddingsboot ooreenkomstig Regulasie 27 van hierdie Hoofstuk aan hom bevestig, wat op 'n skip gebruik op kort internasionale reise verskaf moet word;

(B) die kleiner getal stelle davits wat by uitsondering ingevolge Regulasie 27 van hierdie Hoofstuk gemagtig kan word vir 'n skip wat op kort internasionale reise gebruik word; en

(C) die minimum reddingsbootinhoud vereis vir 'n skip wat op kort internasionale reise gebruik word.

(v) Every passenger ship engaged on short international voyages shall carry in addition to the lifeboats and liferafts required by the provisions of this paragraph, liferafts sufficient to accommodate 10 per cent of the total number of persons for whom there is accommodation in the lifeboats carried in that ship.

(vi) Every passenger ship engaged on short international voyages shall also carry buoyant apparatus for at least 5 per cent of the total number of persons on board.

(vii) The Administration may permit individual ships or classes of ships with short international voyage certificates to proceed on voyages in excess of 600 miles but not exceeding 1 200 miles if such ships comply with the provisions of paragraph (d) of Regulation 1 of Chapter II-1, if they carry lifeboats which provide for 75 per cent of the persons on board and otherwise comply with the provisions of this paragraph.

REGULATION 28

Table relating to davits and lifeboat capacity for ships on short international voyages

The following table fixes according to the length of the ship:

(A) The minimum number of sets of davits to be provided on a ship engaged on short international voyages to each of which must be attached a lifeboat in accordance with Regulation 27 of this Chapter;

(B) the smaller number of sets of davits which may be authorized exceptionally on a ship engaged on short international voyages under Regulation 27 of this Chapter; and

(C) the minimum lifeboat capacity required for a ship engaged on short international voyages.

Geregistreerde lengte van skip		(A) Minimum getal stelle davits	(B) Kleiner getal stelle davits by uitsondering gemagtig	(C) Minimum inhoud van reddingsbote	
Meter	Voet			Kubieke meter	Kubieke voet
31 en onder 37	100 en onder 120	2	2	11	400
37 „ 43	120 „ 140	2	2	18	650
43 „ 49	140 „ 160	2	2	26	900
49 „ 53	160 „ 175	3	3	33	1 150
53 „ 58	175 „ 190	3	3	38	1 350
58 „ 63	190 „ 205	4	4	44	1 550
63 „ 67	205 „ 220	4	4	50	1 750
67 „ 70	220 „ 230	5	4	52	1 850
70 „ 75	230 „ 245	5	4	61	2 150
75 „ 78	245 „ 255	6	5	68	2 400
78 „ 82	255 „ 270	6	5	76	2 700
82 „ 87	270 „ 285	7	5	85	3 000
87 „ 91	285 „ 300	7	5	94	3 300
91 „ 96	300 „ 315	8	6	102	3 600
96 „ 101	315 „ 330	8	6	110	3 900
101 „ 107	330 „ 350	9	7	122	4 300
107 „ 113	350 „ 370	9	7	135	4 750
113 „ 119	370 „ 390	10	7	146	5 150
119 „ 125	390 „ 410	10	7	157	5 550
125 „ 133	410 „ 435	12	9	171	6 050
133 „ 140	435 „ 460	12	9	185	6 550
140 „ 149	460 „ 490	14	10	202	7 150
149 „ 159	490 „ 520	14	10	221	7 800
159 „ 168	520 „ 550	16	12	238	8 400

Opmerking oor (C): Wanneer die lengte van die skip korter as 31 meter (100) voet of langer as 168 meter (550 voet) is, moet die minimum getal stelle davits en die kubieke inhoud van die reddingsbote deur die Administrasie voorgeskryf word.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Registered length of ship		(A) Minimum number of sets of davits	(B) Smaller number of sets of davits authorized exceptionally	(C) Minimum capacity of lifeboats	
Metres	Feet			Cubic metres	Cubic feet
31 and under 37	100 and under 120	2	2	11	400
37 „ 43	120 „ 140	2	2	18	650
43 „ 49	140 „ 160	2	2	26	900
49 „ 53	160 „ 175	3	3	33	1 150
53 „ 58	175 „ 190	3	3	38	1 350
58 „ 63	190 „ 205	4	4	44	1 550
63 „ 67	205 „ 220	4	4	50	1 750
67 „ 70	220 „ 230	5	4	52	1 850
70 „ 75	230 „ 245	5	4	61	2 150
75 „ 78	245 „ 255	6	5	68	2 400
78 „ 82	255 „ 270	6	5	76	2 700
82 „ 87	270 „ 285	7	5	85	3 000
87 „ 91	285 „ 300	7	5	94	3 300
91 „ 96	300 „ 315	8	6	102	3 600
96 „ 101	315 „ 330	8	6	110	3 900
101 „ 107	330 „ 350	9	7	122	4 300
107 „ 113	350 „ 370	9	7	135	4 750
113 „ 119	370 „ 390	10	7	146	5 150
119 „ 125	390 „ 410	10	7	157	5 550
125 „ 133	410 „ 435	12	9	171	6 050
133 „ 140	435 „ 460	12	9	185	6 550
140 „ 149	460 „ 490	14	10	202	7 150
149 „ 159	490 „ 520	14	10	221	7 800
159 „ 168	520 „ 550	16	12	238	8 400

Note on (C): Where the length of the ship is under 31 metres (100 feet) or over 168 metres (550 feet) the minimum number of sets of davits and the cubic capacity of the lifeboats shall be prescribed by the Administration.

REGULASIE 29

Stuwing en hantering van reddingsbote, reddingsvlotte en drywende toestelle

(a) Reddingsbote en reddingsvlotte moet tot tevredenheid van die Administrasie op so 'n wyse gestu word dat—

(i) hulle almal so vinnig moontlik en binne hoogstens 30 minute te water gelaat kan word;

(ii) hulle op generlei wyse die vinnige hantering van enige van die ander reddingsbote, reddingsvlotte of drywende toestelle of die opstelling van persone aan boord by die tewaterlatingsposte of hul inskeping sal belemmer nie;

(iii) die reddingsbote, en die reddingsvlotte waarvoor goedgekeurde tewaterlatingstoestelle gedra moet word, met hul volle kwota persone en uitrusting aan boord in die water geplaas kan word selfs onder ongunstige toestande van stuur- of koplas en met 'n slagsy van 15 grade na die een of ander kant; en

(iv) die reddingsvlotte waarvoor goedgekeurde tewaterlatingstoestelle nie gedra hoef te word nie, en die drywende toestelle in die water geplaas kan word, selfs in ongunstige toestande van stuur- of koplas en met 'n slagsy van 15 grade na die een of ander kant.

(b) Elke reddingsboot moet aan 'n afsonderlike stel davits bevestig word.

(c) Reddingsbote kan alleen op meer as een dek gestu word indien behoorlike maatreëls getref word om te verhoed dat reddingsbote op 'n laer dek onklaar gemaak word deur dié wat op 'n hoër dek gestu word.

(d) Reddingsbote, en reddingsvlotte waarvoor goedgekeurde tewaterlatingstoestelle aan boord moet wees, mag nie in die boeg van die skip geplaas word nie. Hulle moet in sodanige posisies gestu word dat

REGULATION 29

Stowage and handling of lifeboats, liferafts and buoyant apparatus

(a) Lifeboats and liferafts shall be stowed to the satisfaction of the Administration in such a way that—

(i) they can all be launched in the shortest possible time and in not more than 30 minutes;

(ii) they will not impede in any way the prompt handling of any of the other lifeboats, liferafts or buoyant apparatus or the marshalling of the persons on board at the launching stations, or their embarkation;

(iii) the lifeboats, and the liferafts for which approved launching devices are required to be carried, shall be capable of being put into the water loaded with their full complement of persons and equipment even in unfavourable conditions of trim and of 15 degrees of list either way; and

(iv) the liferafts for which approved launching devices are not required to be carried, and the buoyant apparatus, shall be capable of being put into the water even in unfavourable conditions of trim and of 15 degrees of list either way.

(b) Every lifeboat shall be attached to a separate set of davits.

(c) Lifeboats may only be stowed on more than one deck if proper measures are taken to prevent lifeboats on a lower deck being fouled by those stowed on a deck above.

(d) Lifeboats, and liferafts for which approved launching devices are required to be carried, shall not be placed in the bow of the ship. They shall be stowed

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

veilige tewaterlating verseker word, veral met inagneming van die vryruimte tussen hulle en die skroef en steil oorhangende dele van die romp agterskeeps.

(e) Davits moet van 'n goedgekeurde ontwerp wees en moet tot tevredenheid van die Administrasie in geskikte posisies aangebring word. Hulle moet op so 'n wyse op een of meer dekke versprei word dat die reddingsbote onder hulle veilig neergelaat kan word sonder om deur die werking van enige ander davits belemmer te word.

(f) Davits moet van die volgende tipes wees:

(i) Radiale of swaartekragdavits vir reddingsbote wat hoogstens 2 300 kilogram (of 2¼ ton) weeg wanneer hulle volledig uitgerus en beman is;

(ii) swaartekragdavits vir reddingsbote wat meer as 2 300 kilogram (of 2¼ ton) weeg wanneer hulle volledig uitgerus en beman is.

(g) Davits, lopers, blokke en alle ander tuig moet só sterk wees dat die reddingsbote met 'n tewaterlatingsbemanning aan boord uitgeswaai en dan met die volle kwota persone en uitrusting aan boord veilig neergelaat kan word terwyl die skip 'n slagsy van 15 grade na die een of ander kant en 'n stuur- of koplas van 10 grade het.

(h) Skaatse of ander geskikte middels moet verskaf word om met 'n slagsy van 15 grade die tewaterlating van die reddingsbote te vergemaklik.

(i) Middels moet verskaf word om die reddingsbote teen die kant van die skip te bring en hulle daar te hou sodat persone veilig ingeskeep kan word.

(j) Reddingsbote, asook die noodbote wat by Regulasie 27 van hierdie Hoofstuk vereis word, moet bedien word deur draadkabellopers tesame met windasse van 'n goedgekeurde tipe wat, in die geval van noodbote, daardie bote vinnig kan ophaal. By wyse van uitsondering kan die Administrasie manillatoulopers of lopers van ander goedgekeurde materiaal met of sonder windasse toelaat (noodbote moet egter windasse hê wat in staat is om daardie bote vinnig op te haal) wanneer hy daarvan oortuig is dat manillatoulopers of lopers van ander goedgekeurde materiaal toereikend is.

(k) Minstens twee reddingslyne moet aan die middelleiers tussen die davits aangebring word en die lopers en reddingslyne moet lank genoeg wees om die water te bereik wanneer die skip se seevarende diepgang op sy vlakste is en die skip 'n slagsy van 15 grade na die een of ander kant het. Die onderste loperblokke moet toegerus wees met 'n geskikte ring of lang skakel om aan die slingerhake gehaak te word, tensy daar 'n ontkoppelingsinrigting van 'n goedgekeurde tipe aangebring is.

(l) Wanneer meganiese toestelle vir die ophaal van die reddingsbote aangebring word, moet doeltreffende handinrigtings ook verskaf word. Wanneer davits ingehaal word deur die kragbediening van die lopers, moet daar ter voorkoming van oorspanning van die draadkabellopers of davits veiligheidstoestelle aangebring word wat die krag outomaties sal afsluit voordat die davits teen die stuiters kom.

(m) Die lopers vir reddingsbote wat aan davits bevestig is, moet gereed wees vir gebruik en reëlings moet getref word om die reddingsbote vinnig, maar nie noodwendig gelyktydig nie, van die lopers los te maak. Die punt waar die reddingsbote aan die lopers bevestig is, moet só hoog bokant die dolboord wees dat stabiliteit verseker word wanneer die reddingsbote neergelaat word.

in such positions as to ensure safe launching having particular regard to clearance from the propeller and steeply overhanging portions of the hull aft.

(e) Davits shall be of approved design and shall be suitably placed to the satisfaction of the Administration. They shall be so disposed on one or more decks that the lifeboats placed under them can be safely lowered without interference from the operation of any other davits.

(f) Davits shall be as follows:

(i) Luffing or gravity type for operating lifeboats weighing not more than 2 300 kilogrammes (2¼ tons) in their turning out condition;

(ii) gravity type for operating lifeboats weighing more than 2 300 kilogrammes (2¼ tons) in their turning out condition.

(g) Davits, falls, blocks and all other gear shall be of such strength that the lifeboats can be turned out manned by a launching crew and then safely lowered with the full complement of persons and equipment, with the ship listed to 15 degrees either way and with a 10 degrees trim.

(h) Skates or other suitable means shall be provided to facilitate launching the lifeboats against a list of 15 degrees.

(i) Means shall be provided for bringing the lifeboats against the ship's side and there holding them so that persons may be safely embarked.

(j) Lifeboats, together with the emergency boats required by Regulation 27 of this Chapter, shall be served by wire rope falls, together with winches of an approved type which, in the case of the emergency boats, shall be capable of quick recovery of those boats. Exceptionally, the Administration may allow manila rope falls or falls of another approved material with or without winches (except that the emergency boats shall be required to be served by winches which are capable of quick recovery of those boats) where they are satisfied that manilla rope falls or falls of another approved material are adequate.

(k) At least two lifelines shall be fitted to the davit span, and the falls and lifelines shall be long enough to reach the water with the ship at its lightest seagoing draught and listed to 15 degrees either way. Lower fall blocks shall be fitted with a suitable ring or long link for attaching to the sling hooks unless an approved type of disengaging gear is fitted.

(l) Where mechanically-powered appliances are fitted for the recovery of the lifeboats, efficient hand gear shall also be provided. Where davits are recovered by action of the falls by power, safety devices shall be fitted which will automatically cut off the power before the davits come against the stops in order to avoid overstressing the wire rope falls or davits.

(m) Lifeboats attached to davits shall have the falls ready for service and arrangements shall be made for speedily, but not necessarily simultaneously, detaching the lifeboats from the falls. The point of attachment of the lifeboats to the falls shall be at such height above the gunwale as to ensure stability when lowering the lifeboats.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(n) (i) Op passasierskepe wat op ander internasionale reise as kort internasionale reise gebruik word en wat reddingsbote en reddingsvlotte ooreenkomstig subparagraaf (b) (i) van Regulasie 27 van hierdie Hoofstuk dra, moet daar goedgekeurde tewaterlatingstoestelle verskaf word wat na die oordeel van die Administrasie voldoende in getal is om die reddingsvlotte wat tesame met die reddingsbote ooreenkomstig genoemde subparagraaf vereis word om vir almal aan boord plek te bied, in kalm toestande in hoogstens 30 minute in die water te plaas wanneer hulle die getal persone aan boord het wat hulle toegelaat is om te bevat. Goedgekeurde tewaterlatingstoestelle wat aldus verskaf word, moet vir sover doenlik gelykop onder die twee kante van die skip verdeel word en daar mag nooit minder as een sodanige toestel aan elke kant wees nie. Sodanige toestelle hoef egter nie verskaf te word vir die addisionele reddingsvlotte wat ooreenkomstig subparagraaf (b) (ii) van Regulasie 27 van hierdie Hoofstuk vir 25 persent van almal aan boord gedra moet word nie, maar elke reddingsvlot wat ooreenkomstig daardie subparagraaf gedra word, moet, wanneer 'n goedgekeurde tewaterlatingstoestel op die skip verskaf is, van 'n tipe wees wat met so 'n toestel te water gelaat kan word.

(ii) Op passasierskepe wat op kort internasionale reise gebruik word, word die getal goedgekeurde tewaterlatingstoestelle wat verksaf moet word, aan die goeddunke van die Administrasie oorgelaat. Die getal reddingsvlotte toegedeel aan elke sodanige toestel wat aan boord gedra word, mag nie groter wees as die getal wat na die mening van die Administrasie deur so 'n toestel in kalm toestande in hoogstens 30 minute in die water geplaas kan word wanneer hulle die volle getal persone aan boord het wat hulle toegelaat is om te dra nie.

REGULASIE 30

Verligting van dekke, reddingsbote, reddingsvlotte, ens.

(a) Voorsiening moet gemaak word vir 'n elektriese of gelykwaardige verligtingsnetwerk voldoende vir alle veiligheidsvereistes in die verskillende dele van 'n passasiersskip en veral vir dekke waarop reddingsbote en reddingsvlotte opgeberg word. Die selfstandige elektriese noodkragbron wat by Regulasie 25 van Hoofstuk II-1 vereis word, moet hierdie verligtingsnetwerk waar nodig van krag kan voorsien en moet ook die verligting kan verskaf wat by subparagrawe (a) (ii), (b) (ii) en (b) (iii) van Regualse 19 van hierdie Hoofstuk vereis word.

(b) Die uitgang uit elke hoofafdeling wat deur passasiers of bemanning geokkupeer word, moet voortdurend deur middel van 'n noodlamp verlig word. die kragtoevoer vir hierdie noodlampe moet so ingerig wees dat, indien die hoofopwekinstallasie buite werking raak, sodanige noodlampe hul krag sal verkry uit die noodkragbron waarvan daar in paragraaf (a) van hierdie regulasie melding gemaak word.

REGULASIE 31

Bemanning van reddingsbote en reddingsvlotte

(a) 'n Dekoffisier of 'n gediplomeerde reddingsbootman moet in bevel van elke reddingsboot geplaas word en daar moet ook 'n tweede-in-bevel aangewys word. Die persoon in bevel moet 'n lys van die reddingsbootbemanning hê en moet toesien dat die persone onder sy bevel met hul onderskeie pligte vertroud is.

(b) Aan elke motorreddingsboot moet 'n man toegewys word wat in staat is om die motor te bedien.

(n) (i) In passenger ships engaged on international voyages which are not short international voyages in which there are carried lifeboats and liferafts in accordance with subparagraph (b) (i) of Regulation 27 of this Chapter, there shall be provided approved launching devices sufficient in number in the opinion of the Administration to enable that number of liferafts which, together with the lifeboats, is required in accordance with that subparagraph to provide accommodation for all on board, to be put into the water loaded with the number of persons they are permitted to accommodate, in not more than 30 minutes in calm conditions. Approved launching devices so provided shall, so far as practicable, be distributed equally on each side of the ship and there shall never be less than one such device on each side. No such devices need, however, be provided for the additional liferafts required to be carried by subparagraph (b) (ii) of Regulation 27 of this Chapter for 25 per cent of all on board, but every liferaft carried in accordance with that subparagraph shall, where an approved launching device is provided in the ship, be of a type which is capable of being launched from such a device.

(ii) In passenger ships engaged on short international voyages, the number of approved launching devices to be provided shall be at the discretion of the Administration. The number of liferafts allocated to each such device carried shall not be more than the number which, in the opinion of the Administration, can be put into the water fully loaded with the number of persons they are permitted to carry by that device in not more than 30 minutes in calm conditions.

REGULATION 30

Lighting for decks, lifeboats, liferafts, etc.

(a) Provision shall be made for an electric or equivalent system of lighting sufficient for all the requirements of safety in the different parts of a passenger ship, and particularly for decks on which the lifeboats and liferafts are stowed. The self-contained emergency source of electrical power required by Regulation 25 of Chapter II-1 shall be capable of supplying where necessary this lighting system and also the lighting required by subparagraphs (a) (ii), (b) (ii) and (b) (iii) of Regulation 19 of this Chapter.

(b) The exit from every main compartment occupied by passengers or crew shall be continuously lighted by an emergency lamp. The power for these emergency lamps shall be so arranged that they will be supplied from the emergency source of power referred to in paragraph (a) of this Regulation in the event of failure of the main generating plant.

REGULATION 31

Manning of lifeboats and liferafts

(a) A deck officer or certified lifeboatman shall be placed in charge of each lifeboat and a second-in-command shall also be nominated. The person in charge shall have a list of the lifeboat's crew, and shall see that the men placed under his orders are acquainted with their several duties.

(b) A man capable of working the motor shall be assigned to each motor lifeboat.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(c) 'n Man wat in staat is om die radio- en soekliginstallasies te bedien, moet toegewys word aan elke reddingsboot wat hierdie uitrusting aan boord het.

(d) 'n Man wat geoefen is in die hantering en bediening van reddingsvlotte moet vir elke reddingsvlot aan boord toegewys word, behalwe wanneer die Administrasie in die geval van skepe wat gebruik word op kort internasionale reise, daarvan oortuig is dat dit nie doenlik is nie.

REGULASIE 32

Gediplomeerde reddingsbootmanne

(a) Op passasierskepe moet daar vir elke reddingsboot wat ter voldoening aan die bepaling van hierdie Hoofstuk aan boord is, 'n getal reddingsbootmanne wees wat minstens gelyk is aan dié wat in die onderstaande tabel aangegee word:

Voorgeskrewe getal persone op reddingsboot	*Minimum getal gediplomeerde reddingsbootmanne*
Minder as 41 persone	2
Van 41 tot 61 persone	3
Van 62 tot 85 persone	4
Bo 85 persone	5

(b) Die toewysing van die gediplomeerde reddingsbootmanne aan elke reddingsboot word aan die oordeel van die gesagvoerder oorgelaat.

(c) Bevoegdheidsertifikate word op gesag van die Administrasie uitgereik. Ten einde so 'n sertifikaat te verkry, moet die applikant bewys lewer dat hy opgelei is in al die verrigtinge wat in verband staan met die tewaterlating van reddingsbote en ander reddingstoestelle en in die gebruik van roeispane en aandryfinrigtings, dat hy vertroud is met die praktiese hantering van reddingsbote en ander reddingsuitrusting, en voorts dat hy in staat is om die bevele betreffende alle soorte reddingstoestelle te verstaan en uit te voer.

REGULASIE 33

Drywende toestelle

(a) Geen tipe drywende toestel mag goedgekeur word nie tensy hy aan die onderstaande voorwaardes voldoen:

(i) Hy moet sodanige afmetings hê en so sterk wees dat hy vanaf sy stuwingsplek in die water gegooi kan word sonder om beskadig te word.

(ii) Hy moet 'n gewig hê van hoogstens 180 kilogram (400 lb.) tensy tot tevredenheid van die Administrasie geskikte middels verskaf word om hom te water te laat sonder om hom met die hand op te tel.

(iii) Hy moet van goedgekeurde materiaal en bou wees.

(iv) Hy moet doeltreffend en stabiel wees ongeag met watter kant hy na bo drywe.

(v) Die lugkaste of gelykwaardige dryfmiddels moet so na as moontlik aan die kante van die toestelle geplaas word en sodanige dryfvermoë moet nie van opblasing afhanklik wees nie.

(vi) Hy moet toegerus wees met 'n vanglyn en daar moet 'n lyn stewig buite-om vasgestrop wees.

(b) Die getal persone waarvoor drywende toestelle gesertifiseer is, moet die getal wees—

(i) wat verkry word deur die getal kilogram yster wat so 'n toestel in varswater kan dra, deur 14,5 (of die getal ponde deur 32) te deel; of

(ii) wat gelyk is aan die getal millimeters in die omtrek gedeel deur 305 (of die aantal voet in die omtrek), na gelang van watter getal die kleinste is.

(c) A man capable of working the radio and searchlight installations shall be assigned to each lifeboat carrying this equipment.

(d) A man practised in the handling and operation of liferafts shall be assigned to each liferaft carried, except where in ships engaged on short international voyages the Administration is satisfied that this is not practicable.

REGULATION 32

Certificated lifeboatmen

(a) In passenger ships there shall be, for every lifeboat carried in order to comply with this Chapter, a number of lifeboatmen at least equal to that specified in the following table:

Prescribed complement of lifeboat	*The minimum number of certificated lifeboatmen shall be*
Less than 41 persons	2
From 41 to 61 persons	3
From 62 to 85 persons	4
Above 85 persons	5

(b) The allocation of the certificated lifeboatmen to each lifeboat remains within the discretion of the master.

(c) Certificates of efficiency shall be issued under the authority of the Administration. In order to obtain such a certificate an applicant shall prove that he has been trained in all the operations connected with launching lifeboats and other life-saving appliances and in the use of oars and propelling gear; that he is acquainted with the practical handling of lifeboats and of other life-saving equipment, and further, that he is capable of understanding and answering the orders relative to all kinds of life-saving appliances.

REGULATION 33

Buoyant apparatus

(a) No type of buoyant apparatus shall be approved unless it satisfies the following conditions:

(i) It shall be of such size and strength that it can be thrown from the place where it is stowed into the water without being damaged.

(ii) It shall not exceed 180 kilogrammes (400 lbs.) in weight unless suitable means to the satisfaction of the Administration are provided to enable it to be launched without lifting by hand.

(iii) It shall be of approved material and construction.

(iv) It shall be effective and stable when floating either way up.

(v) The air cases or equivalent buoyancy shall be placed as near as possible to the sides of the apparatus, and such buoyancy shall not be dependent upon inflation.

(vi) It shall be fitted with a painter and have a line securely becketed round the outside.

(b) The number of persons for which buoyant apparatus is certified shall be the number—

(i) ascertained by dividing the number of kilogrammes of iron which it is capable of supporting in fresh water by 14,5 (or the number of pounds divided by 32); or

(ii) equal to the number of millimetres in the perimeter divided by 305 (or the number of feet in the perimeter), whichever is the less.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 34

Getal reddingsboeie wat verskaf moet word

Die minimum getal reddingsboeie waarmee passasierskepe toegerus moet word, moet volgens onderstaande tabel bepaal word:

Lengte van skip		*Minimum getal boeie*
Meter	*Voet*	
Onder 61.....	Onder 200.....	8
61 en onder 122.....	200 en onder 400.....	12
122 en onder 183.....	400 en onder 600.....	18
183 en onder 244.....	600 en onder 800.....	24
244 en groter.....	800 en groter.....	30

DEEL C—SLEGS VRAGSKEPE

REGULASIE 35

Getal en inhoud van reddingsbote en reddingsvlotte

(a) (i) Elke vragskip, behalwe skepe gebruik as walvisfabriekskepe, visverwerkings- of visinmaakfabriekskepe en skepe gebruik vir die vervoer van persone werksaam in die walvis-, visverwerkings- of visinmaaknywerhede, moet aan elke kant van die skip reddingsbote dra met so 'n totale inhoud dat hulle al die persone aan boord kan bevat, en moet daarbenewens reddingsvlotte dra wat voldoende is om die helfte van daardie getal te bevat.

Met dien verstande dat, indien die Administrasie in die geval van sodanige vragskepe wat gebruik word op internasionale reise tussen nabygeleë buurstate, daarvan oortuig is dat die omstandighede van die reis sodanig is dat dit onredelik of onnodig is om reddingsvlotte aan boord te moet hê, hy individuele skepe of klasse skepe in daardie mate van hierdie vereiste kan vrystel.

(ii) (1) Onderworpe aan die bepalings van subparagraaf (ii) (2) van hierdie paragraaf, moet elke tenkskip van 3 000 ton bruto tonnemaat en groter minstens vier reddingsbote aan boord hê, twee agter- en twee midskeeps, behalwe dat by tenkskepe wat geen midskeepse bobou het nie, al die reddingsbote agterskeeps kan wees.

(2) 'n Tenkskip van 3 000 ton bruto tonnemaat en groter wat geen midskeepse bobou het nie, kan deur die Administrasie toegelaat word om net twee reddingsbote aan boord te hê, solank—

(aa) een reddingsboot agterskeeps aan boord elke kant van die skip is;

(bb) elke sodanige reddingsboot nie langer as 8,5 meter (28 voet) is nie;

(cc) elke sodanige reddingsboot so ver vorentoe as doenlik gestu word, maar minstens so ver vorentoe dat die agterstewe van die reddingsboot een en 'n halwe keer die lengte van die reddingsboot voor die skip se skroef is; en

(dd) elke sodanige reddingsboot so na aan seevlak gestu word as wat veilig en doenlik is.

(b) (i) Elke skip gebruik as 'n walvisfabriekskip, elke skip gebruik as 'n visverwerkings- of visinmaakfabriekskip en elke skip gebruik vir die vervoer van persone werksaam in die walvis-, visverwerkings- of visinmaaknywerhede, moet die volgende dra:

(1) Aan elke kant reddingsbote met so 'n totale inhoud dat hulle die helfte van al die mense aan boord kan bevat.

Met dien verstande dat die Administrasie kan toelaat dat die reddingsbote vervang word deur reddingsvlotte met dieselfde totale inhoud, op voorwaarde dat daar

REGULATION 34

Number of lifebuoys to be provided

The minimum number of lifebuoys with which passenger ships are provided shall be fixed by the following table:

Length of ship		*Minimum number of buoys*
in metres	*in feet*	
Under 16.....	Under 200.....	8
61 and under 122.....	200 and under 400....	12
122 and under 183.....	400 and under 600....	18
183 and under 244.....	600 and under 800....	24
244 and over.....	800 and over.....	30

PART C—CARGO SHIPS ONLY

REGULATION 35

Number and capacity of lifeboats and liferafts

(a) (i) Every cargo ship, except ships employed as whale factory ships, fish processing or canning factory ships, and ships engaged in the carriage of persons employed in the whaling, fish processing or canning industries, shall carry lifeboats on each side of the ship of such aggregate capacity as will accommodate all persons on board, and in addition shall carry liferafts sufficient to accommodate half that number.

Provided that, in the case of such cargo ships engaged on international voyages between near neighbouring countries, the Administration, if it is satisfied that the conditions of the voyage are such as to render the compulsory carriage of liferafts unreasonable or unnecessary, may to that extent exempt individual ships or classes of ships from this requirement.

(ii) (1) Subject to the provisions of subparagraph (ii) (2) of this paragraph, every tanker of 3 000 tons gross tonnage and upwards shall carry not less than four lifeboats, two of which shall be carried aft and two amidships, except that in tankers which have no amidships superstructure all lifeboats shall be carried aft.

(2) A tanker of 3 000 tons gross tonnage and upwards which has no amidships superstructure may be permitted by the Administration to carry two lifeboats only, provided that—

(aa) one lifeboat is carried aft on each side of the ship;

(bb) each such lifeboat shall not exceed 8,5 metres (28 feet) in length;

(cc) each such lifeboat shall be stowed as far forward as practicable, but at least so far forward that the afterend of the lifeboat is one-and-a-half times the length of the lifeboat forward of the propeller; and

(dd) each such lifeboat shall be stowed as near sea level as is safe and practicable.

(b) (i) Every ship employed as a whale factory ship, every ship employed as a fish processing or canning factory ship and every ship engaged in the carriage of persons employed in the whaling, fish processing or canning industries shall carry—

(1) lifeboats on each side of such aggregate capacity as will accommodate half the total number of persons on board; provided that the Administration may permit the substitution of lifeboats by liferafts of the same total capacity so how-

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

nooit aan enige kant van die skip minder reddingsbote mag wees as wat genoeg is om 37½ persent van almal aan boord te bevat nie.

(2) Reddingsvlotte met 'n voldoende totale inhoud om die helfte van al die mense aan boord te bevat.

Met dien verstande dat, indien dit op skepe wat gebruik word as visverwerkings- of visinmaakfabriekskepe, ondoenlik is om reddingsbote te dra wat ten volle aan die vereistes van hierdie Hoofstuk voldoen, die Administrasie kan toelaat dat in die plek daarvan ander bote gedra word, wat egter nie minder plek mag hê as dié wat by hierdie Regulasie vereis word nie, en wat minstens oor die dryfvermoë en uitrusting beskik wat by hierdie Hoofstuk vir reddingsbote vereis word.

(ii) Elke skip gebruik as 'n walvisfabriekskip, elke skip gebruik as 'n visverwerkings- of visinmaakfabriekskip en elke skip gebruik vir die vervoer van persone werksaam in die walvis-, visverwerkings- of visinmaaknywerhede, moet vir gebruik in 'n noodgeval twee bote dra, naamlik een aan elke kant. Hierdie bote moet van 'n goedgekeurde tipe en hoogstens 8,5 meter (28 voet) lank wees. Hulle kan vir toepassing van hierdie paragraaf in aanmerking geneem word mits hulle volkome voldoen aan hierdie Hoofstuk se vereistes vir reddingsbote, en vir die toepassing van regulasie 8 mits hulle ook nog voldoen aan die vereistes van Regulasie 9, en, waar toepaslik, Regulasie 14, van hierdie Hoofstuk. Hulle moet gereed gehou word vir onmiddellike gebruik terwyl die skip op see is. Op skepe waar daar aan die vereistes van paragraaf (g) van Regulasie 36 voldoen word deur middel van toestelle wat aan die kante van die reddingsbote aangebring is, word nie vereis dat sulke toestelle aangebring word aan die twee bote wat verskaf word om aan die vereistes van hierdie Regulasie te voldoen nie.

(c) Elke vragskip sonder midskeepse bobou en met 'n geregistreerde lengte van 150 meter (492 voet) of langer moet benewens die reddingsvlotte wat ingevolge subparagraaf (a) (i) van hierdie Regulasie vereis word, 'n reddingsvlot met akkommodasie vir minstens ses persone aan boord hê wat so ver vorentoe gestu moet word as wat redelik en doenlik is.

REGULASIE 36

Davits en inrigtings vir tewaterlating

(a) Op vragskepe moet reddingsbote en reddingsvlotte tot tevredenheid van die Administrasie gestu word.

(b) Elke reddingsboot moet aan 'n afsonderlike stel davits bevestig word.

(c) Reddingsbote en reddingsvlotte waarvoor goedgekeurde tewaterlatingtoestelle vereis word moet verkieslik so na as moontlik aan die akkommodasie- en diensruimtes geplaas word. Hulle moet in sodanige posisies gestu word dat veilige tewaterlating verseker word, veral met inagneming van die vryruimte tussen hulle en die skroef en steil oorhangende dele van die romp agterskeeps, en die doel moet wees om vir sover doenlik te verseker dat hulle langs die reguit kant van die skip af te water gelaat kan word. Indien hulle vóór geplaas word moet hulle agter die aanvaringsbeskot gestu word in 'n beskutte posisie, en in hierdie opsig moet die Administrasie spesiale aandag skenk aan die sterkte van die davits.

ever that here shall never be less than sufficient lifeboats on each side of the ship to accommodate 37½ per cent of all on board;

(2) liferafts of sufficient aggregate capacity to accommodate half the total number of persons on board; provided that, if in ships employed as fish processing or canning factory ships, it is impracticable to carry lifeboats which comply fully with the requirements of this Chapter, the Administration may permit instead the carriage of other boats, which shall however provide not less than the accommodation required by this Regulation and shall have at least the buoyancy and equipment required by this Chapter for lifeboats.

(ii) Every ship employed as a whale factory ship, every ship employed as a fish processing or canning factory ship and every ship engaged in the carriage of persons employed in the whaling, fish processing or canning industries shall carry two boats—one on each side—for use in an emergency. These boats shall be of an approved type and shall be not more than 8,5 metres (28 feet) in length. They may be counted for the purposes of this paragraph provided that they comply fully with the requirements for lifeboats of this Chapter and for the purposes of Regulation 8 provided that in addition they comply with the requirements of Regulation 9, and, where appropriate, Regulation 14 of this Chapter. They shall be kept ready for immediate use while the ship is at sea. In ships in which the requirements of paragraph (g) of Regulation 36 of this Chapter are met by means of appliances fitted to the sides of the lifeboats, such appliances shall not be required to be fitted to the two boats provided to meet the requirements of this Regulation.

(c) Every cargo ship with no amidships superstructure having a registered length of 150 metres (492 feet) and upwards shall carry, in addition to the liferafts required under subparagraph (a) (i) of this Regulation, a liferaft capable of accommodating at least six persons which shall be stowed as far forward as is reasonable and practicable.

REGULATION 36

Davits and launching arrangements

(a) In cargo ships lifeboats and liferafts shall be stowed to the satisfaction of the Administration.

(b) Every lifeboat shall be attached to a separate set of davits.

(c) Lifeboats and liferafts for which approved launching devices are required to be carried shall preferably be positioned as close to accommodation and service spaces as possible. They shall be stowed in such positions as to ensure safe launching, having particular regard to clearance from the propeller and steeply overhanging portions of the hull, with the object of ensuring so far as practicable that they can be launched down the straight side of the ship. If positioned forward they shall be stowed abaft the collision bulkhead in a sheltered position and in this respect the Administration shall give special consideration to the strength of the davits.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(d) Davits moet van 'n goedgekeurde ontwerp wees en moet tot tevredenheid van die Administrasie in geskikte posisies aangebring word.

(e) Op tenkskepe van 1 600 ton bruto tonnemaat en meer, skepe gebruik as walvisfabriekskepe, skepe gebruik as viswerkings- of visinmaakfabriekskepe en skepe gebruik vir die vervoer van persone werksaam in die walvis-, visverwerkings- en visinmaaknywerhede moet alle davits van die swaartekragtipe wees. Op ander skepe moet davits van die volgende tipes wees:

(i) Radiale of swaartekragdavits vir reddingsbote wat hoogstens 2 300 kilogram (2¼ ton) weeg wanneer hulle volledig uitgerus en beman is;

(ii) swaartekragdavits vir reddingsbote wat meer as 2 300 kilogram (2¼ ton) weeg wanneer hulle volledig uitgerus en beman is.

(f) Davits, lopers, blokke en alle ander tuig moet só sterk wees dat die reddingsbote met 'n tewaterlatingsbemanning aan boord uitgeswaai en dan met die volle kwota persone en uitrusting aan boord veiling neergelaat kan word terwyl die skip 'n slagsy van 15 grade na die een of ander kant en 'n stuur- of koplas van 10 grade het.

(g) Skaatse of ander geskikte middels moet verskaf word om met 'n slagsy van 15 grade die tewaterlating van die reddingsbote te vergemaklik.

(h) Middels moet verskaf word om die reddingsbote teen die kant van die skip te bring en hulle daar te hou sodat persone veilig ingeskeep kan word.

(i) Reddingsbote, asook die noodbote wat by subparagraaf (b) (ii) van Regulasie 35 van hierdie Hoofstuk vereis word, moet bedien word deur draadkabellopers tesame met windasse van 'n goedgekeurde tipe wat, in die geval van die noodbote, daardie bote vinnig kan ophaal. By wyse van uitsondering kan die Administrasie manillatoulopers of lopers van ander goedgekeurde materiaal met of sonder windasse toelaat (noodbote moet egter windasse hê wat in staat is om daardie bote vinnig op te haal) wanneer hy daarvan oortuig is dat manillatoulopers of lopers van ander goedgekeurde materiaal toereikend is.

(j) Minstens twee reddingslyne moet aan die middelleiers tussen die davits aangebring word en die lopers en reddingslyne moet lank genoeg wees om die water te bereik wanneer die skip se seevarende diepgang op sy vlakste is en die skip 'n slagsy van 15 grade na die een of ander kant het. Die onderste loperblokke moet toegerus wees met 'n geskikte ring of lang skakel om aan die slingerhake gehaak te word, tensy daar 'n ontkoppelingsinrigting van 'n goedgekeurde tipe aangebring is.

(k) Wanneer meganiese toestelle vir die ophaal van die reddingsbote aangebring word, moet doeltreffende handinrigtings ook verskaf word. Wanneer davits ingehaal word deur die kragbediening van die lopers, moet daar ter voorkoming van oorspanning van die draadkabellopers of davits veiligheidstoestelle aangebring word wat die krag outomaties sal afsluit voordat die davits teen die stuiters kom.

(l) Die lopers vir reddingsbote moet gereed wees vir gebruik, en reëlings moet getref word om die reddingsbote vinnig, maar nie noodwendig gelyktydig nie, van die lopers los te kry. Die punt waar die reddingsbote aan die lopers bevestig is, moet so hoog bokant die dolboord wees dat stabiliteit verseker word wanneer die reddingsbote neergelaat word.

(d) Davits shall be of approved design and shall be suitably placed to the satisfaction of the Administration.

(e) In tankers of 1 600 tons gross tonnage and upwards, ships employed as whale factory ships, ships employed as fish processing or canning factory ships and ships engaged in the carriage of persons employed in the whaling, fish processing or canning industries, all davits shall be of the gravity type. In other ships, davits shall be as follows:

(i) Luffing or gravity type for operating lifeboats weighing not more than 2 300 kilogrammes (2¼ tons) in their turning out condition;

(ii) gravity type for operating lifeboats weighing more than 2 300 kilogrammes (2¼ tons) in their turning out condition.

(f) Davits, falls, blocks and all other gear shall be of such strength that the lifeboats can be turned out manned by a launching crew and then safely lowered with the full complement of persons and equipment, with the ship listed to 15 degrees either way, and with a 10 degrees trim.

(g) Skates or other suitable means shall be provided to facilitate launching the lifeboats against a list of 15 degrees.

(h) Means shall be provided for bringing the lifeboats against the ship's side and there holding them so that persons may be safely embarked.

(i) Lifeboats, together with the emergency boats required by subparagraph (b) (ii) of Regulation 35 of this Chapter, shall be served by wire rope falls, together with winches of an approved type which, in the case of the emergency boats, shall be capable of quick recovery of those boats. Exceptionally, the Administration may allow manilla rope falls or falls of another approved material with or without winches (except that the emergency boats shall be required to be served by winches which are capable of quick recovery of those boats) where they are satisfied that manila rope falls or falls of another approved material are adequate.

(j) At least two lifelines shall be fitted to the davit spans, and the falls and lifelines shall be long enough to reach the water with the ship at its lightest seagoing draught and listed to 15 degrees either way. Lower fall blocks shall be fitted with a suitable ring or long link for attaching to the sling hooks unless an approved type of disengaging gear is fitted.

(k) Where mechanically powered appliances are fitted for the recovery of the lifeboats, efficient hand gear shall also be provided. Where davits are recovered by action of the falls by power, safety devices shall be fitted which will automatically cut off the power before the davits come against the stops in order to avoid overstressing the wire rope falls or davits.

(l) Lifeboats shall have the falls ready for service, and arrangements shall be made for speedily, but not necessarily simultaneously, detaching the lifeboats from the falls. The point of attachment of the lifeboats to the falls shall be at such height above the gunwale as to ensure stability when lowering the lifeboats.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(m) Op skepe gebruik as walvisfabriekskepe, skepe gebruik as visverwerkings- of visinmaakfabriekskepe en skepe gebruik vir die vervoer van persone werksaam in die walvis-, visverwerkings- of visinmaaknywerhede waarop reddingsbote en reddingsvlotte ooreenkomstig subparagraaf (b) (i) (2) van Regulasie 35 gedra word, is dit nie nodig om goedgekeurde tewaterlatingstoestelle vir die reddingsvlotte verskaf nie, maar sodanige toestelle moet verskaf word wat na die oordeel van die Administrasie voldoende in getal is om die reddingsvlotte wat ooreenkomstig subparagraaf (b) (i) (1) van daardie Regulasie gedra word, in kalm toestande binne hoogstens 30 minute in die water te plaas wanneer hulle die getal persone aan boord het wat hulle toegelaat is om te bevat. Goedgekeurde tewaterlatingstoestelle wat aldus verskaf word, moet vir sover doenlik gelykop onder die twee kante van die skip verdeel word. Elke reddingsvlot op skepe waarop 'n goedgekeurde tewaterlatingstoestel vereis word, moet van 'n tipe wees wat met so 'n toestel te water gelaat kan word.

REGULASIE 37

Getal reddingsboeie wat verskaf moet word

Daar moet minstens agt reddingsboeie van 'n tipe wat voldoen aan die vereistes van Regulasie 21 van hierdie Hoofstuk aan boord wees.

REGULASIE 38

Noodverligting

Die verligting wat by subparagrawe (a) (ii), (b) (ii) en (b) (iii) van Regulasie 19 van hierdie Hoofstuk vereis word moet minstens drie uur lank verskaf kan word deur die noodkragbron wat by Regulasie 26 van Hoofstuk II-1 vereis word. Op vragskepe van 1 600 ton bruto tonnemaat en meer moet die Administrasie toesien dat die verligting van die gange, trappe en uitgange sodanig is dat alle persone aan boord onbelemmerde toegang sal hê tot die tewaterlatingsposte en die stuwingsplekke van die reddingsbote en -vlotte.

HOOFSTUK IV

RADIOTELEGRAFIE EN RADIOTELEFONIE

DEEL A—TOEPASSING EN DEFINISIES

REGULASIE 1

Toepassing

(a) Tensy uitdruklik anders bepaal, is hierdie Hoofstuk van toepassing op alle skepe waarop die huidige regulasies van toepassing is.

(b) Hierdie Hoofstuk geld nie vir skepe waarop die huidige regulasie andersins van toepassing sou wees, solank sulke skepe op die Groot Mere van Noord-Amerika en hul verbindings- en takriviere so ver oos as die laer uitgang van die St. Lambertkanaalsluis te Montreal, in die provinsie Quebec, Kanada, vaar nie*.

(c) Geen bepaling in hierdie Hoofstuk belet 'n skip of reddingsvaartuig wat in nood verkeer, om van enige middel tot sy beskikking gebruik te maak om die aandag te trek, sy posisie bekend te maak en hulp te verkry nie.

* Sodanige skepe is onderworpe aan spesiale vereistes met betrekking tot radio vir veiligheidsdoeleindes soos vervat in die betrokke ooreenkoms tussen Kanada en die Verenigde State van Amerika.

(m) In ships employed as whale factory ships, ships employed as fish processing or canning factory ships and ships engaged in the carriage of persons employed in the whaling, fish processing or canning industries, in which there are carried lifeboats and liferafts in accordance with subparagraph (b) (i) (2) of Regulation 35 no approved launching devices need be provided for the liferafts, but there shall be provided such devices sufficient in number, in the opinion of the Administration, to enable the liferafts carried in accordance with subparagraph (b) (i) (1) of that Regulation to be put into the water loaded with the number of persons they are permitted to accommodate, in not more than 30 minutes in calm conditions. Approved launching devices so provided shall, so far as practicable, be distributed equally on each side of the ship. Every liferaft carried on ships in which an approved launching device is required to be provided shall be of a type which is capable of being launched by such a device.

REGULATION 37

Number of lifebuoys to be provided

At least eight lifebuoys of a type which satisfies the requirements of Regulation 21 of this Chapter shall be carried.

REGULATION 38

Emergency lighting

The lighting required by subparagraphs (a) (ii), (b) (ii) and (b) (iii) of Regulation 19 of this Chapter shall be capable of being supplied for at least three hours by the emergency source of power required by Regulation 26 of Chapter II-1. In cargo ships of 1 600 tons gross tonnage and upwards the Administration shall ensure that the lighting of the alleyways, stairways and exits is such that the access of all persons on board to the launching stations and stowage positions of lifeboats and liferafts is not impeded.

CHAPTER IV

RADIOTELEGRAPHY AND RADIOTELEPHONY

PART A—APPLICATION AND DEFINITIONS

REGULATION 1

Application

(a) Unless expressly provided otherwise, this Chapter applies to all ships to which the present Regulations apply.

(b) This Chapter does not apply to ships to which present Regulations would otherwise apply while such ships are being navigated within the Great Lakes of North America and their connecting and tributary waters as far east as the lower exit of the St Lambert Lock at Montreal in the Province of Quebec, Canada*.

(c) No provision in this Chapter shall prevent the use by a ship or survival craft in distress of any means at its disposal to attract attention, make known its position and obtain help.

* Such ships are subject to special requirements relative to radio for safety purposes, as contained in the relevant agreement between Canada and the United States of America.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 2

Uitdrukkings en definisies

Vir die toepassing van hierdie Hoofstuk het die volgende uitdrukkings ondervermelde betekenisse. Alle ander uidtrukkings wat in hierdie Hoofstuk gebesig en ook in die Radioregulasies omskryf word, het hier dieselfde betekenisse as wat in daardie regulasies daaraan geheg word:

(a) "Radioregulasies" beteken die Radioregulasies wat as bylae verskyn of geag word as bylae te verskyn van die jongste Internasionale Konvensie betreffende Telekommunikasie wat te eniger tyd van krag mag wees.

(b) "Radiotelegraaf-outo-alarm" beteken 'n outoalarmontvangstoestel wat op die radiotelegraaf-alarmsein reageer en goedgekeur is.

(c) "Radiotelefoon-outo-alarm" beteken 'n outoalarmontvangstoestel wat op die radiotelefoon-alarmsein reageer en goedgekeur is.

(d) "Radiotelefoonstasie", "radiotelefooninrigting" en "luisterdiens-radiotelefoon" moet geag word betrekking te hê op die mediumfrekwensiegolf tensy daar uitdruklik anders bepaal word.

(e) "Radio-offisier" beteken iemand in besit van 'n radiotelegraafbedienersertifikaat van minstens die eerste of tweede klas of 'n algemene radiokommunikasiebedienersertifikaat vir die maritieme mobiele diens wat aan die bepalings van die Radioregulasies voldoen, en werksaam is in die radiotelegraafstasie van 'n skip wat met so 'n stasie toegerus is ooreenkomstig die bepalings van Regulasie 3 of Regulasie 4 van hierdie Hoofstuk.

(f) "Radiotelefoonoperateur" beteken iemand in besit van 'n toepaslike sertifikaat wat aan die bepalings van die Radioregulasies voldoen.

(g) "Bestaande installasie" beteken—

(i) 'n installasie wat in sy geheel aan boord van 'n skip aangebring is voor die datum waarop die huidige Konvensie in werking tree, ongeag die datum waarop aanneming deur die betrokke Administrasie van krag word; en

(ii) 'n installasie waarvan 'n deel aan boord skip aangebring is voor die datum waarop die huidige Konvensie in werking tree en waarvan die res bestaan òf uit dele wat ter vervanging van identiese dele aangebring is òf uit dele wat aan die vereistes van hierdie hoofstuk voldoen.

(h) "Nuwe installasie" beteken enige installasie wat nie 'n bestaande installasie is nie.

REGULASIE 3

Radiotelegraafstasie

Tensy hulle kragtens Regulasie 5 van hierdie Hoofstuk vrygestel is, moet passasierskepe ongeag hul grootte, en vragskepe van 1 600 ton bruto tonnemaat en meer toegerus wees met 'n radiotelegraafstasie wat voldoen aan die bepalings van Regulasies 9 en 10 van hierdie Hoofstuk.

REGULASIE 4

Radiotelefoonstasie

Tensy hulle toegerus is met 'n radiotelegraafstasie wat voldoen aan die bepalings van Regulasies 9 en 10 van hierdie Hoofstuk en mits hulle nie ingevolge Regulasie 5 van hierdie Hoofstuk vrygestel is nie, moet vragskepe van 300 ton bruto tonnemaat en meer maar

REGULATION 2

Terms and definitions

For the purpose of this Chapter the following terms shall have the meanings defined below. All other terms which are used in this Chapter and which are also defined in the Radio Regulations shall have the same meanings as defined in those Regulations:

(a) "Radio Regulations" means the Radio Regulations annexed to, or regarded as being annexed to, the most recent International Telecommunication Convention which may be in force at any time.

(b) "Radiotelegraph auto alarm" means an automatic alarm receiving apparatus which responds to the radiotelegraph alarm signal and has been approved.

(c) "Radiotelephone auto alarm" means an automatic alarm receiving apparatus which responds to the radiotelephone alarm signal and has been approved.

(d) "Radiotelephone station", "Radiotelephone installation" and "Watches-radiotelephone" shall be considered as relating to the medium frequency band, unless expressly provided otherwise.

(e) "Radio Officer" means a person holding at least a first or second class radiotelegraph operator's certificate, or a radiocommunication operator's general certificate for the maritime mobile service, complying with the provisions of the Radio Regulations, who is employed in the radiotelegraph station of a ship which is provided with such a station in compliance with the provisions of Regulation 3 or Regulation 4 of this Chapter.

(f) "Radiotelephone operator" means a person holding an appropriate certificate complying with the provisions of the Radio Regulations.

(g) "Existing installation" means—

(i) an installation wholly installed on board a ship before the date on which the present Convention enters into force irrespective of the date on which acceptance by the respective Administration takes effect; and

(ii) an installation part of which was installed on board a ship before the date of entry into force of the present Convention and the rest of which consists either of parts installed in replacement of identical parts, or parts which comply with the requirements of this Chapter.

(h) "New installation" means any installation which is not an existing installation.

REGULATION 3

Radiotelegraph station

Passenger ships irrespective of size and cargo ships of 1 600 tons gross tonnage and upwards, unless exempted under Regulation 5 of this Chapter, shall be fitted with a radiotelegraph station complying with the provisions of Regulations 9 and 10 of this Chapter.

REGULATION 4

Radiotelephone station

Cargo ships of 300 tons gross tonnage and upwards but less than 1 600 tons gross tonnage, unless fitted with a radiotelegraph station complying with the provisions of Regulations 9 and 10 of this Chapter shall, provided they are not exempted under Regulation 5

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

minder as 1 600 ton bruto tonnemaat toegerus wees met 'n radiotelefoonstasie wat voldoen aan die vereistes van Regulasies 15 en 16 van hierdie Hoofstuk.

REGULASIE 5

Vrystelling van Regulasies 3 *en* 4

(a) Die Kontrakterende Regerings ag dit hoogs gewens dat daar nie van die toepassing van Regulasies 3 en 4 van hierdie Hoofstuk afgewyk word nie; nietemin kan die Administrasie aan individuele passasier- of vragskepe gedeeltelike en/of voorwaardelike of algehele vrystelling verleen van die vereistes van Regulasie 3 of Regulasie 4 van hierdie Hoofstuk.

(b) Die vrystellings wat kragtens paragraaf (a) van hierdie Regulasie toegelaat word, mag slegs verleen word aan 'n skip wat gebruik word op 'n reis waarop die maksimum afstand van die skip vanaf die kus, die lengte van die reis, die afwesigheid van algemene skeepvaartgevare en ander omstandighede rakende die veiligheid, sodanig is dat dit die volledige toepassing van Regulasie 3 of Regulasie 4 van hierdie Hoofstuk onredelik of onnodig maak. Wanneer daar besluit moet word of vrystelling aan individuele skepe verleen moet word, of nie, moet Administrasies in aanmerking neem watter uitwerking vrystellings mag hê of die algemene doeltreffendheid van die nooddiens vir die veiligheid van alle skepe. Administrasies behoort rekening te hou met die wenslikheid daarvan om te eis dat skepe wat vrystelling verkry van die vereistes van Regulasie 3 van hierdie Hoofstuk, as 'n voorwaarde vir vrystelling toegerus word met 'n radiotelefoonstasie wat voldoen aan die bepalings van Regulasies 15 en 16 van hierdie Hoofstuk.

(c) Elke Administrasie moet so spoedig moontlik na 1 Januarie van elke jaar by die Organisasie 'n verslag indien waarin al die vrystellings wat gedurende die vorige kalenderjaar ingevolge paragrawe (a) en (b) van hierdie Regulasie verleen is, aangegee en die redes vir sodanige vrystellings verstrek word.

DEEL B—LUISTERDIENS

REGULASIE 6

Luisterdiens—Radiotelegrafie

(a) Elke skip wat ooreenkomstig Regulasie 3 of Regulasie 4 van hierdie Hoofstuk met 'n radiotelegraafstasie toegerus is, moet terwyl hy op see is, minstens een radio-offisier aan boord hê, en indien hy nie met 'n radiotelegraaf-outo-alarm toegerus is nie, moet daar behoudens die bepalings van paragraaf (d) van hierdie Regulasie deur middel van 'n radio-offisier wat 'n kopstuk of 'n luidspreker gebruik, 'n onafgebroke luisterdiens op die radiotelegraafnoodfrekwensie gehandhaaf word.

(b) Elke passasierskip wat ooreenkomstig Regulasie 3 van hierdie Hoofstuk met 'n radiotelegraafstasie toegerus is en daarbenewens 'n radiotelegraaf-outo-alarm het, moet behoudens die bepalings van paragraaf (d) van hierdie Regulasie terwyl hy op see is, deur middel van 'n radio-offisier wat 'n kopstuk of 'n luidspreker gebruik, 'n luisterdiens op die radiotelegraafnoodfrekwensie soos volg handhaaf:

(i) Indien hy 250 passasiers of minder aan boord het of gesertifiseer is om hierdie getal te vervoer, altesaam minstens agt luisterure per dag;

(ii) indien hy meer as 250 passasiers aan boord het of gesertifiseer is om daardie getal te vervoer en 'n reis onderneem wat langer as 16 uur duur tussen twee

of this Chapter, be fitted with a radiotelephone station complying with the provisions of Regulations 15 and 16 of this Chapter.

REGULATION 5

Exemptions from Regulations 3 *and* 4

(a) The Contracting Governments consider it highly desirable not to deviate from the application of Regulations 3 and 4 of this Chapter; nevertheless theAdministrationmaygrant to individual passenger or cargo ships exemptions of a partial and/or conditional nature, or complete exemption from the requirements of Regulation 3 or Regulation 4 of this Chapter.

(b) The exemptions permitted under paragraph (a) of this Regulation shall be granted only to a ship engaged on a voyage where the maximum distance of the ship from the shore, the length of the voyage, the absence of general navigational hazards, and other conditions affecting safety are such as to render the full application of Regulation 3 or Regulation 4 of this Chapter unreasonable or unnecessary. When deciding whether or not to grant exemptions to individual ships, Administrations shall have regard to the effect that exemptions may have upon the general efficiency of the distress service for the safety of all ships. Administrations should bear in mind the desirability of requiring ships which are exempted from the requirement of Regulation 3 of this Chapter to be fitted with a radiotelephone station which complies with the provisions of Regulations 15 and 16 of this Chapter as a condition of exemption.

(c) Each Administration shall submit to the Organization as soon as possible after the first of January in each year a report showing all exemptions granted under paragraphs (a) and (b) of this Regulation during the previous calendar year and giving the reasons for granting such exemptions.

PART B—WATCHES

REGULATION 6

Watches—Radiotelegraph

(a) Each ship which in accordance with Regulation 3 or Regulation 4 of this Chapter is fitted with a radiotelegraph station shall, while at sea, carry at least one radio officer and, if not fitted with a radiotelegraph auto alarm shall, subject to the provisions of paragraph (d) of this Regulation, listen continuously on the radiotelegraph distress frequency by means of a radio officer using headphones or a loudspeaker.

(b) Each passenger ship which in accordance with Regulation 3 of this Chapter is fitted with a radiotelegraph station, if fitted with a radiotelegraph auto alarm, shall, subject to the provisions of paragraph (d) of this Regulation, and while at sea, listen on the radiotelegraph distress frequency by means of a radio officer using headphones or a loudspeaker, as follows:

(i) If carrying or certificated to carry 250 passengers or less, at least 8 hours listening a day in the aggregate;

(ii) if carrying or certificated to carry more than 250 passengers and engaged on a voyage exceeding

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

opeenvolgende hawens, altesaam minstens 16 luisterure per dag, en in hierdie geval moet die skip minstens twee radio-offisiere aan boord hê;

(iii) indien hy meer as 250 passasiers aan boord het of gesertifiseer is om daardie getal te vervoer en 'n reis onderneem wat korter as 16 uur duur tussen twee opeenvolgende hawens, altesaam minstens agt luisterure per dag.

(c) (i) Elke vragskip wat ooreenkomstig Regulasie 3 van hierdie Hoofstuk met 'n radiotelegraafstasie toegerus is, en daarbenewens 'n radiotelegraaf-outo-alarm het, moet behoudens die bepalings van paragraaf (d) van hierdie Regulasie terwyl hy op see is, deur middel van 'n radio-offisier wat 'n kopstuk of 'n luidspreker gebruik, altesaam minstens agt uur per dag op die radiotelegraafnoodfrekwensie 'n luisterdiens handhaaf.

(ii) Elke vragskip van 300 ton bruto tonnemaat en meer maar minder as 1 600 ton bruto tonnemaat wat as gevolg van Regulasie 4 van hierdie Hoofstuk met 'n radiotelegraafstasie toegerus is en daarbenewens 'n radiotelegraaf-outo-alarm het, moet behoudens die bepalings van paragraaf (d) van hierdie Regulasie terwyl hy op see is, deur middel van 'n radio-offisier wat 'n kopstuk of 'n luidspreker gebruik, 'n luisterdiens op die radiotelegraafnoodfrekwensie handhaaf gedurende sodanige tydperke as wat die Administrasie bepaal. Administrasies moet egter rekening hou met die wenslikheid daarvan om, waar doenlik, 'n luisterdiens van altesaam minstens agt uur per dag voor te skryf.

(d) (i) Gedurende die tydperk wanneer 'n radio-offisier ooreenkomstig hierdie regulasie op die radiotelegraafnoodfrekwensie moet luister, mag die radio-offisier hierdie luisterdiens onderbreek terwyl hy die verkeer op ander frekwensies behartig of ander noodsaaklike radiodienste verrig, maar wel slegs wanneer dit ondoenlik is om deur middel van 'n gedeelde kopstuk of luidspreker te luister. Die luisterdiens moet altyd deur 'n rado-offisier met 'n kopstuk of 'n luidspreker gehandhaaf word gedurende die stilteperiodes waarvoor daar in die Radioregulasies voorsiening gemaak word.

Die term "noodsaaklike radiodienste" in hierdie paragraaf sluit in dringende herstelwerk aan—

(1) radiokommunikasieapparaat vir veiligheidsdoeleindes;

(2) radionavigasietoerusting op bevel van die gesagvoerder.

(ii) Benewens die bepalings van subparagraaf (i) van hierdie paragraaf kan die radio-offisier op ander skepe as multiradio-offisier-passasierskepe in uitsonderlike gevalle, dit is wanneer dit onprakties is om met gedeelde kopstuk of luidsprekers te luister, op bevel van die gesagvoerder ophou luister ten einde instandhoudingswerk uit te voer wat nodig is om ophande synde wanfunksionering te voorkom van—

radiokommunikasieapparaat vir veiligheidsdoeleindes;

radionavigasietoerusting;

ander elektroniese navigasietoerusting, insluitend die herstel daarvan;

op voorwaarde dat:

(1) Die radio-offisier na mening van die betrokke Administrasie behoorlik gekwalifiseerd is om hierdie pligte uit te voer; en

(2) die skip toegerus is met 'n ontvangselektor wat voldoen aan die vereistes van die Radioregulasies;

16 hours' duration between two consecutive ports, at least 16 hours' listening a day in the aggregate. In this case the ship shall carry at least two radio officers;

(iii) if carrying or certificated to carry more than 250 passengers and engaged on a voayge of less than 16 hours' duration between two consecutive ports, at least 8 hours' listening a day in the aggregate.

(c) (i) Each cargo ship which in accordance with Regulation 3 of this Chapter is fitted with a radiotelegraph station, if fitted with a radiotelegraph auto alarm, shall, subject to the provisions of paragraph (d) of this Regulation, and while at sea, listen on the radiotelegraph distress frequency by means of a radio officer using headphones or a loudspeaker, for at least 8 hours a day in the aggregate.

(ii) Each cargo ship of 300 tons gross tonnage and upwards but less than 1 600 tons gross tonnage which is fitted with a radiotelegraph station as a consequence of Regulation 4 of this Chapter, if fitted with a radiotelegraph auto alarm shall, subject to the provisions of paragraph (d) of this Regulation, and while at sea, listen on the radiotelegraph distress frequency by means of a radio officer using headphones or a loudspeaker, during such periods as may be determined by the Administration. Administrations shall, however, have regard to the desirability of requiring, whenever practicable, a listening watch of at least 8 hours a day in the aggregate.

(d) (i) During the period when a radio officer is required by this Regulation to listen on the radiotelegraph distress frequency, the radio officer may discontinue such listening during the time when he is handling traffic on other frequencies, or performing other essential radio duties, but only if it is impracticable to listen by split headphones or loudspeaker. The listening watch shall always be maintained by a radio officer using headphones or a loudspeaker during the silence periods provided for by the Radio Regulations.

The term "essential radio duties" in this paragraph includes urgent repairs of—

(1) equipment for radiocommunication used for safety;

(2) radio navigational equipment by order of the master.

(ii) In addition to the provisions of subparagraph (i) of this paragraph, on ships other than multi-radio officer passenger ships, the radio officer may, in exceptional cases, i.e. when it is impractical to listen by split headphones or loudspeaker, discontinue listening by order of the master in order to carry out maintenance required to prevent imminent malfunction of—

equipment for radiocommunication used for safety;

radio navigational equipment;

other electronic navigational equipment including its repair;

Provided that—

(1) the radio officer, at the discretion of the Administration concerned, is appropriately qualified to perform these duties; and

(2) the ship is fitted with a receiving selector which meets the requirements of the Radio Regulations;

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(3) die luisterdiens deurentyd gehandhaaf word deur 'n radio-offisier met kopstukke of 'n luidspreker gedurende die stilteperiodes waarvoor die Radioregulasies voorsiening maak.

(e) Op alle skepe wat met 'n radiotelegraaf-outoalarm toegerus is, moet hierdie radiotelegraaf-outoalarm, terwyl die skip op see is, in werking wees gedurende die tye wanneer daar nie ooreenkomstig paragraaf (b), (c) of (d) van hierdie Regulasie geluister word nie en, waar doenlik, gedurende rigtingbepalingsverrigtinge.

(f) Die luistertye waarvoor by hierdie Regulasie voorsiening gemaak word, met inbegrip van dié wat deur die Administrasie bepaal word, moet by voorkeur gehandhaaf word gedurende die tye wat by die Radioregulasies vir die radiotelegraafdiens voorgeskryf word.

REGULASIE 7

Luisterdiens—Radiotelefonie

(a) Elke skip wat ooreenkomstig Regulasie 4 van hierdie Hoofstuk met 'n radiotelefoonstasie toegerus is, moet veiligheidshalwe minstens een radioteletoonoperateur aan boord hê (wat die gesagvoerder, 'n offisier of 'n bemanningslid in besit van 'n radiotelefoniesertifikaat kan wees) en moet terwyl hy op see is, op die plek aan boord vanwaar die skip gewoonlik genavigeer word, met behulp van 'n luidspreker, gefiltreerde luidspreker of radiotelefoon-outo-alarm 'n onafgebroke luisterdiens op die radiotelefoonnoodfrekwensie handhaaf.

(b) Elke skip wat ooreenkomstig Regulasie 3 of Regulasie 4 van hierdie Hoofstuk toegerus is met 'n radiotelegraafstasie moet terwyl hy op see is 'n deurlopende wagdiens op die radiotelefoonnoodfrekwensie handhaaf op 'n plek wat die Administrasie moet bepaal, deur middel van 'n radiotelefoonnoodfrekwensieluisterdiensontvangstoestel met behulp van 'n luidspreker, gefiltreerde luidspreker of radiotelefoon-outoalarm.

REGULASIE 8

Luisterdiens—Bhf.-radiotelefoon

Elke skip wat ooreenkomstig Regulasie 18 van Hoofstuk V van 'n baie hoëfrekwensie (bhf.)-radiotelefoonstasie voorsien is, moet op die brug 'n luisterdiens handhaaf vir sodanige tydperke en op sodanige kanale as wat vereis mag word deur die Kontrakterende Regering waarna in daardie regulasie verwys word.

DEEL C—TEGNIESE VEREISTES

REGULASIE 9

Radiotelegraafstasies

(a) Die radiotelegraafstasie moet so geleë wees dat geen hinderlike steurings uit 'n meganiese of ander bron van buite af die behoorlike ontvangs van radioseine sal belemmer nie. Die stasie moet so hoog doenlik in die skip geleë wees ten teinde die groots moontlike mate van veiligheid te verseker.

(b) Die radiotelegraafbedienkamer moet groot genoeg wees en oor voldoende ventilasie beskik sodat die hoof- en reserweradiotelegraafinstallasies doeltreffend bedien kan word, en hy mag nie gebruik word vir 'n doel wat die funksionering van die radiotelegraafstasie sal belemmer nie.

(3) the listening watch is always maintained by a radio officer using headphones or loudspeaker during the silence periods provided for by the Radio Regulations.

(e) In all ships fitted with a radiotelegraph auto alarm this radiotelegraph auto alarm shall, while the ship is at sea, be in operation whenever there is no listening being kept under paragraphs (b), (c) or (d) of this Regulation and, whenever practicable, during direction-finding operations.

(f) The listening periods provided for by this Regulation, including those which are determined by the Administration, should be maintained preferably during periods prescribed for the radiotelegraph service by the Radio Regulations.

REGULATION 7

Watches—Radiotelephone

(a) Each ship which is fitted with a radiotelephone station in accordance with Regulation 4 of this Chapter shall, for safety purposes, carry at least one radiotelephone operator (who may be the master, an officer or a member of the crew holding a certificate for radiotelephony) and shall, while at sea, maintain continuous watch on the radiotelephone distress frequency in the place on board from which the ship is usually navigated, by use of a radiotelephone distress frequency watch receiver, using a loudspeaker, a filtered loudspeaker or radiotelephone auto alarm.

(b) Each ship which in accordance with Regulation 3 or Regulation 4 of this Chapter is fitted with a radiotelegraph station shall, while at sea, maintain continuous watch on the radiotelephone distress frequency in a place to be determined by the Administration, by use of a radiotelephone distress frequency watch receiver, using a loudspeaker, a filtered loudspeaker or radiotelephone auto alarm.

REGULATION 8

Watches—VHF radiotelephone

Each ship provided with a Very High Frequency (VHF) radiotelephone station, in accordance with Regulation 18 of Chapter V, shall maintain a listening watch on the bridge for such periods and on such channels as may be required by the Contracting Government referred to in that Regulation.

PART C—TECHNICAL REQUIREMENTS

REGULATION 9

Radiotelegraph stations

(a) The radiotelegraph station shall be so located that no harmful interference from extraneous mechanical or other noise will be caused to the proper reception of radio signals. The station shall be placed as high in the ship as is practicable, so that the greatest possible degree of safety may be secured.

(b) The radiotelegraph operating room shall be of sufficient size and of adequate ventilation to enable the main and reserve radiotelegraph installations to be operated efficiently, and shall not be used for any purpose which will interfere with the operation of the radiotelegraph station.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(c) Die slaapakkommodasie van minstens een radio-offisier moet so na as doenlik aan die radiotelegraafbedienkamer geleë wees. Op nuwe skepe mag hierdie slaapakkommodasie nie binne die radiotelegraafbedienkamer geleë wees nie.

(d) Tussen die radiotelegraafbedienkamer en die brug en een ander plek, as daar een is, vanwaar die skip genavigeer word, moet daar onafhanklik van die hoofkommunikasiestelsel op die skip 'n doeltreffende tweerigtingstelsel vir oproepe en mondelinge kommunikasie wees.

(e) Die radiotelegraafinstallasie moet op so 'n plek aangebring word dat dit beskerm sal wees teen die nadelige uitwerkings van water of temperatuuruiterstes. Dit moet geredelik toeganklik wees sowel vir onmiddellike gebruik in geval van nood as vir hersteldoeleindes.

(f) 'n Betroubare uurwerk met 'n wyserplaat van minstens 12,5 sentimeter (vyf duim) in deersnee en 'n konsentriese sekondewyser, en met die stilteperiodes in die Radioregulasie voorgeskryf vir die radiotelegraafdiens op sy voorkant gemerk, moet verskaf word. Hy moet stewig in die radiotelegraafbedienkamer in so 'n posisie gemonteer word dat die hele wyserplaat maklik en noukeuring deur die radio-offisier vanaf die radiotelegraafbedienposisie en vanaf die posisie vir die toets van die radiotelegraaf-outo-alarmontvanger waargeneem kan word.

(g) 'n Betroubare noodlig moet in die radiotelegraafbedienkamer verskaf word, en dit moet bestaan uit 'n elektriese lamp wat permanent ingerig is om die bedieningskontroles van die hoof- en reserweradiotelegraafinstallasies en die uurwerk wat by paragraaf (f) van hierdie Regulasie vereis word, bevredigend te verlig. In die geval van nuwe installasies moet hierdie lamp, indien hy van krag voorsien word uit die reserweenergiebron vereis by subparagraaf (a) (iii) van Regulasie 10 van hierdie Hoofstuk, beheer word deur middel van tweerigtingskakelaars naby die hoofingang na die radiotelegraafbedienkamer en by die radiotelegraafbedienposisie tensy die aanleg van die radiotelegraafbedienkamer dit nie regverdig nie. Hierdie skakelaars moet duidelik geëtiketteer word om hul doel aan te dui.

(h) Òf 'n elektriese inspeksielamp wat vanaf die reserweenergiebron vereis by subparagraaf (a) (iii) van Regulasie 10 van hierdie Hoofstuk bedien word en met 'n buigsame leiding van voldoende lengte toegerus is òf 'n flitslig moet verskaf en in die radiotelegraafbedienkamer gehou word.

(i) Die radiotelegraafstasie moet toegerus word met sodanige onderdele, gereedskap en toetsuitrusting as wat dit moontlik sal maak om die radiotelegraafinstallasie ter see in doeltreffende werkende orde te hou. Die toetsuitrusting moet een of meer instrumente insluit om wisselstroomvolts, gelykstroomvolts en ohms te meet.

(j) Indien 'n afsonderlike noodradiotelegraafbedienkamer verskaf is, is die bepalings van paragrawe (d), (e), (f), (g) en (h) van hierdie Regulasie daarop van toepassing.

REGULASIE 10

Radiotelegraafinstallasies

(a) Tensy uitdruklik in hierdie Regulasie anders bepaal, moet—

(i) die radiotelegraafstasie 'n hoofinstallasie en 'n reserwe-installasie bevat wat elektries geskei en elektries onafhanklik van mekaar is;

(c) The sleeping accommodation of at least one radio officer shall be situated as near as practicable to the radiotelegraph operating room. In new ships, this sleeping accommodation shall not be within the radiotelegraph operating room.

(d) There shall be provided between the radiotelegraph operating room and the bridge and one other place, if any, from which the ship is navigated, an efficient two-way system for calling and voice communication which shall be independent of the main communication system on the ship.

(e) The radiotelegraph installation shall be installed in such a position that it will be protected against the harmful effects of water or extremes of temperature. It shall be readily accessible both for immediate use in case of distress and for repair.

(f) A reliable clock with a dial not less than 12,5 centimetres (5 inches) in diameter and a concentric seconds hand, the face of which is marked to indicate the silence periods prescribed for the radiotelegraph service by the Radio Regulations, shall be provided. It shall be securely mounted in the radiotelegraph operating room in such a position that the entire dial can be easily and accurately observed by the radio officer from the radiotelegraph operating position and from the position for testing the radiotelegraph auto alarm receiver.

(g) A reliable emergency light shall be provided in the radiotelegraph operating room, consisting of an electric lamp permanently arranged so as to provide satisfactory illumination of the operating controls of the main and reserve radiotelegraph installations and of the clock required by paragraph (f) of this Regulation. In new installations, this lamp shall, if supplied from the reserve source of energy required by subparagraph (a) (iii) of Regulation 10 of this Chapter, be controlled by two-way switches placed near the main entrance to the radiotelegraph operating room and at the radiotelegraph operating position, unless the layout of the radiotelegraph operating room does not warrant it. These switches shall be clearly labelled to indicate their purpose.

(h) Either an electric inspection lamp, operated from the reserve source of energy required by subparagraph (a) (iii) of Regulation 10 of this Chapter and provided with a flexible lead of adequate length, or a flashlight shall be provided and kept in the radiotelegraph operating room.

(i) The radiotelegraph station shall be provided with such spare parts, tools and testing equipment as will enable the radiotelegraph installation to be maintained in efficient working condition while at sea. The testing equipment shall include an instrument or instruments for measuring A.C. volts, D.C. volts and ohms.

(j) If a separate emergency radiotelegraph operating room is provided the requirements of paragraphs (d), (e), (f), (g) and (h) of this Regulation shall apply to it.

REGULATION 10

Radiotelegraph installations

(a) Except as otherwise expressly provided in this Regulation—

(i) the radiotelegraph station shall include a main installation and reserve installation, electrically separate and electrically independent of each other;

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(ii) die hoofinstallasie 'n hoofsender, 'n hoofontvanger en 'n hoofenergiebron insluit;

(iii) die reserwe-installasie 'n reserwesender, 'n reserweontvanger en 'n reserwe-energiebron insluit;

(iv) 'n hoof- en 'n noodantenne verskaf en aanbring word; met dien verstande dat die Administrasie enige skip van die bepaling betreffende 'n reserwe antenne kan vrystel indien hy daarvan oortuig is dat die aanbring van so 'n antenne ondoenlik of onredelik is, maar in so 'n geval moet 'n geskikte reserwe-antenne wat vir onmiddellike installering volledig opgestel is, verskaf word. Daarbenewens moet voldoende antennedraad en isolators in alle gevalle verskaf word sodat 'n geskikte antenne opgerig kan word. Indien die hoofantenne tussen stutte hang wat geneig is om te piets, moet hy behoorlik beskerm word sodat hy nie breek nie.

(b) In die geval van installasies op vragskepe (uitgesonderd dié op vragskepe van 1 600 ton bruto tonnemaat en meer wat op of na 19 November 1952 geïnstalleer is), is die reserwesender nie verpligtend indien die hoofsender aan al die vereistes vir die reserwesender voldoen nie.

(c) (i) Die hoof- en reserwesenders moet vinnig met die hoofantenne en met die reserwe-antenne as een aangebring is, verbind en daarop ingestel kan word.

(ii) Die hoof- en reserwe-ontvangers moet vinnig verbind kan word met enige antenne waarmee hulle saam gebruik moet word.

(d) Alle dele van die reserwe-installasie moet so hoog moontlik in die skip opgestel word sodat die groots moontlike mate van veiligheid verseker kan word.

(e) Die hoof- en reserwesenders moet in staat wees om op die radiotelegraafnoodfrekwensie uit te send deur gebruik te maak van 'n klas uitsending wat in die Radioregulasies vir daardie frekwensie toegewys is. Daarbenewens moet die hoofsender in staat wees om op minstens twee werkfrekwensies van die gematigde golflengtes tussen 405 kHz en 535 kHz uit te send deur die gebruik van uitstralingsklasse wat in die Radioregulasies toegewys is vir hierdie frekwensies. Die reserwesender kan bestaan uit 'n skip se noodsender soos omskryf in en waarvan die gebruik beperk word by die Radioregulasies.

(f) Indien gemoduleerde uitsending by die Radioregulasies voorgeskryf word, moet die hoof- en reserwesenders 'n modulasiediepte van minstens 70 persent en 'n toonfrekwensie tussen 450 en 1 350 Hz hê.

(g) Die hoof- en reserwesenders moet wanneer hulle aan die hoofantenne gekoppel is, 'n minimum normale reikwydte hê soos hieronder aangegee, dit wil sê hulle moet in staat wees om gedurende die dag en onder normale toestande en omstandighede oor die aangewese afstande duidelik waarneembare seine van skip tot skip uit te send*. (Duidelik waarneembare seine sal normaalweg ontvang word indien die effektiewe waarde van die veldsterkte by die ontvanger minstens 50 mikrovolts per meter is.)

	Minimum normale reikwydte in myl	
	Hoofsender	Reserwesender
Alle passasierskepe en vragskepe van 1600 ton bruto tonnemaat en meer	150	100
Vragskepe kleiner as 1 600 ton bruto tonnemaat	100	75

* By afwesigheid van 'n direkte veldsterktemeting kan onderstaande gegewens gebruik word as 'n leidraad om die normale reikwydte by benadering te bepaal:

(ii) the main installation shall include a main transmitter, main receiver, radiotelephone distress frequency watch receiver, and main source of energy;

(iii) the reserve installation shall include a reserve transmitter, reserve receiver and reserve source of energy;

(iv) a main and a reserve antenna shall be provided and installed, provided that the Administration may exempt any ship from the provision of a reserve antenna if it is satisfied that the fitting of such an antenna is impracticable or unreasonable, but in such case a suitable spare antenna completely assembled for immediate installation shall be carried. In addition, sufficient antenna wire and insulators shall in all cases be provided to enable a suitable antenna to be erected. The main antenna, if suspended between supports liable to whipping, shall be suitably protected against breakage.

(b) In installations on cargo ships (except those on cargo ships of 1 600 tons gross tonnage and upwards installed on or after 19 November 1952), if the main transmitter complies with all the requirements for the reserve transmitter, the latter is not obligatory.

(c) (i) The main and reserve transmitters shall be capable of being quickly connected with and tuned to the main antenna, and the reserve antenna if one is fitted.

(ii) The main and reserve receivers shall be capable of being quickly connected with any antenna with which they are required to be used.

(d) All parts of the reserve installation shall be placed as high in the ship as is practicable, so that the greatest possible degree of safety may be secured.

(e) The main and reserve transmitters shall be capable of transmitting on the radiotelegraph distress frequency using a class of emission assigned by the Radio Regulations for that frequency. In addition, the main transmitter shall be capable of transmitting on at least two working frequencies in the authorized bands between 405 kHz and 535 kHz, using classes of emission assigned by the Radio Regulations for these frequencies. The reserve transmitter may consist of a ship's emergency transmitter, as defined in and limited in use by the Radio Regulations.

(f) The main and reserve transmitters shall, if modulated emission is prescribed by the Radio Regulations, have a depth of modulation of not less than 70 per cent and a note frequency between 450 and 1 350 Hz.

(g) The main and reserve transmitters shall, when connected to the main antenna, have a minimum normal range as specified below, that is to say, they must be capable of transmitting clearly perceptible signals from ship to ship by day and under normal conditions and circumstances over the specified ranges*. (Clearly perceptible signals will normally be received if the R. M. S. value of the field strength at the receiver is at least 50 microvolts per metre.

	Minimum normal range in miles	
	Main transmitter	Reserve transmitter
All passenger ships, and cargo ships of 1 600 tons gross tonnage and upwards	150	100
Cargo ships below 1 600 tons gross tonnage	100	75

* In the absence of a direct measurement of the field strength the following data may be used as a guide for approximately determining the normal range:

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(h) (i) Die hoof- en reserwe-ontvangers moet in staat wees om die radiotelegraafnoodfrekwensie en die klas uitsending te ontvang wat in die Radioregulasies vir daardie frekwensie toegewys is.

(ii) Bowendien moet die hoofontvanger dit moontlik maak om sodanige van die frekwensies en klasse uitsendings wat gebruik word vir die uitsending van tydseine, meteorologiese berigte en sodanige ander mededelings betreffende die veiligheid van navigasie te ontvang as wat die Administrasie nodig ag.

(iii) Die radiotelefoonnoodfrekwensie-luisterdiensontvangtoestel moet vooraf op hierdie frekwensie ingestel word. Dit moet voorsien wees van 'n dempeenheid of 'n toestel om die luidspreker stil te maak indien dit op die brug is in die afwesigheid van 'n radiotelefoonalarmsein. Die toestel moet maklik in- en uitgeskakel kan word wanneer die toestand na die oordeel van die gesagvoerder sodanig is dat die handhawing van die luisterdiens die veilige navigasie van die skip sal belemmer.

(iv) (1) 'n Radiotelefoonsender, as een voorsien is, moet toegerus wees met 'n outomatiese toestel vir die opwekking van die radiotelefoon-alarmsein, wat só ontwerp is dat dit nie per ongeluk sal begin werk nie en dat dit voldoen aan die vereistes van paragraaf (e) van Regulasie 16 van hierdie Hoofstuk. Die toestel moet te eniger tyd uitgeskakel kan word ten einde die onmiddellike versending van 'n noodoproep moontlik te maak.

(2) Reëlings moet getref word om van tyd tot tyd die behoorlike werking van die outomatiese toestel vir die opwekking van die radiotelefoon-alarmsein na te gaan op ander frekwensies as die radiotelefoonnoodfrekwensie, deur die gebruik van 'n geskikte kunsmatige antenne.

Normale reikwydte in myle	Meter-ampéres[1]	Totale antennevermoë (watt)[2]
200	128	200
175	102	125
150	76	71
125	58	41
100	45	25
75	34	14

[1] Hierdie syfer verteenwoordig die produk van die maksimum hoogte van die antenne bo die diepste laaiwaterlyn in meters en die antennestroom in ampères (effektiewe waarde).

Die waardes wat in die tweede kolom van die tabel aangegee word, kom ooreen met die gemiddelde waarde van die verhouding

$$\frac{\text{effektiewe antennehoogte}}{\text{maksimum antennehoogte}} = 0,47$$

Hierdie verhouding wissel met plaaslike omstandighede van die antenne en kan lê tussen ongeveer 0,3 en 0,7.

[2] Die waardes wat in die derde kolom van die tabel aangegee word, kom ooreen met die gemiddelde waarde van die verhouding

$$\frac{\text{uitgestraalde antennevermoë}}{\text{totale antennevermoë}} = 0,08$$

Hierdie verhouding wissel aansienlik na gelang van die waardes van effektiewe antennehoogte en antenneweerstand.

(i) Die hoofontvanger moet gevoelig genoeg wees om seine in koptelefone of deur middel van 'n luidspreker voort te bring wanneer die ontvangerinset slegs 50 mikrovolts is. Die reserwe-ontvanger moet gevoelig genoeg wees om sulke seine voort te bring wanneer die ontvangerinset slegs 100 mikrovolts is.

(j) Terwyl die skip op see is, moet daar te alle tye voldoende elektriese energie beskikbaar wees om die hoofinstallasie oor die normale reikwydte wat by

(h) (i) The main and reserve receivers shall be capable of receiving the radiotelegraph distress frequency and the classes of emission assigned by the Radio Regulations for that frequency.

(ii) In addition, the main receiver shall permit the reception of such of the frequencies and classes of emission used for the transmission of time signals, meteorological messages and such other communications relating to safety of navigation as may be considered necessary by the Administration.

(iii) The radiotelephone distress frequency watch receiver shall be preset to this frequency. It shall be provided with a filtering unit or a device to silence the loudspeaker if on the bridge in the absence of a radiotelephone alarm signal. The device shall be capable of being easily switched in and out and may be used when, in the opinion of the master, conditions are such that maintenance of the listening watch would interfere with the safe navigation of the ship.

(iv) (1) A radiotelephone transmitter, if provided, shall be fitted with an automatic device for generating the radiotelephone alarm signal, so designed as to prevent actuation by mistake, and complying with the requirements of paragraph (e) of Regulation 16 of this Chapter. The device shall be capable of being taken out of operation at any time in order to permit the immediate transmission of a distress message.

(2) Arrangements shall be made to check periodically the proper functioning of the automatic device for generating the radiotelephone alarm signal on frequencies other than the radiotelephone distress frequency using a suitable artificial antenna.

Normal range in miles	Metre-amperes[1]	Total antenna power (watts)[2]
200	128	200
175	102	125
150	76	71
125	58	41
100	45	25
75	34	14

[1] This figure represents the product of the maximum height of the antenna above the deepest load water-line in metres and the antenna current in amperes (R.M.S. value).

The values given in the second column of the table correspond to an average value of the ratio

$$\frac{\text{effective antenna height}}{\text{maximum antenna height}} = 0,47.$$

This ratio varies with local conditions of the antenna and may vary between about 0,3 and 0,7.

[2] The values given in the third column of the table correspond to an average value of the ratio

$$\frac{\text{radiated antenna power}}{\text{total antenna power}} = 0,08.$$

This ratio varies considerably according to the values of effective antenna height and antenna resistance.

(i) The main receiver shall have sufficient sensitivity to produce signals in headphones or by means of a loudspeaker when the receiver input is as low as 50 microvolts. The reserve receiver shall have sufficient sensitivity to produce such signals when the receiver input is as low as 100 microvolts.

(j) There shall be available at all times, while the ship is at sea, a supply of electrical energy sufficient to operate the main installation over the normal range

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

paragraaf (g) van hierdie regulasie vereis word, te laat werk, asook om batterye te laai wat 'n deel van die radiotelegraafstasie uitmaak. Die stroomspanning van die kragtoevoer vir die hoofinstallasie moet in die geval van nuwe skepe binne plus-minus 10 persent van die aangeslane spanning gehou word. In die geval van bestaande skepe moet dit so na as moontlik aan en, indien moontlik, binne plus-minus 10 persent van die aangeslane spanning gehou word.

(k) Die reserwe-installasie moet voorsien word van 'n energiebron wat onafhanklik is van sowel die aandryfkrag as die elektriese stelsel van die skip.

(l) (i) Die reserwe-energiebron moet by voorkeur bestaan uit akkumulatorbatterye, wat vanaf die skip se elektriese stelsel gelaai kan word, en moet in alle omstandighede vinnig in werking gestel kan word en die reserwesender en -ontvanger, in normale dienstoestande benewens enige van die addisionale belastings genoem in paragrawe (m) en (n) van hierdie Regulasie* minstens ses uur lank onafgebroke kan laat werk.

(ii) Die reserwekragbron se kapasiteit moet voldoende wees om die reserwesender en die bhf-inrigting, as een geïnstalleer is, gelyktydig vir minstens ses uur lank te laat werk, tensy 'n oorskakelingsmeganisme aangebring is wat net alternatiewe werking moontlik maak.

(m) Die reserwe-energiebron moet gebruik word vir die verskaffing van elektrisiteit aan die reserwe-installasie en die outomatiese alarmseinsleuteltoestel gespesifiseer in paragraaf (r) van hierdie regulasie, indien dit met elektrisiteit werk.

Die reserwe-energiebron kan ook gebruik word vir die verskaffing van elektrisiteit aan—

(i) die radiotelegraaf-outo-alarm;

(ii) die noodlig gespesifiseer in paragraaf (g) van Regulasie 9 van hierdie Hoofstuk;

(iii) die rigtingsoeker;

(iv) die bhf-inrigting;

(v) die meganisme vir die opwekking van die radiotelefoon-alarmstelsel, as daar een is;

(vi) enige toestel, voorgeskryf in die Radioregulasies, om oorskakeling van uitsending na ontvangs, en omgekeerd, toe te laat.

Behoudens die bepalings van paragraaf (n) van hierdie Regulasie mag die reserwe-energiebron nie vir iets anders as die doeleindes uiteengesit in hierdie paragraaf gebruik word nie.

(n) Nieteenstaande die bepalings van paragraaf (m) van hierdie Regulasie kan die Administrasie magtiging verleen dat daar op vragskepe van die reserwe-energiebron gebruik gemaak word vir 'n klein aantal noodstroombane met geringe vermoë wat uitsluitlik beperk is tot die boonste deel van die skip, soos noodverligting op die bootdek, op voorwaarde dat hierdie stroombane as dit nodig is geredelik ontkoppel kan word en dat die energiebron se vermoë voldoende is om die addisionele belasting of belastings te dra.

* Ten einde die hoeveelheid elektrisiteit te behaal wat deur die reserwe-energiebron voorsien moet word, word die volgende formule as leidraad aanbeveel:

½ van die sender se stroomverbruik met die sleutel ondertoe (merk)
+½ van die sender se stroomverbruik met die sleutel boontoe (ruimte)
+ stroomverbruik van ontvanger en addisionele stroombane wat by die reserwe-energiebron aangesluit is.

required by paragraph (g) of this Regulation as well as for the purpose of charging any batteries forming part of the radiotelegraph station. The voltage of the supply for the main installation shall, in the case of new ships, be maintained within ±10 per cent of the rated voltage. In the case of existing ships, it shall be maintained as near the rated voltage as possible and, if practicable, within ±10 per cent.

(k) The reserve installation shall be provided with a source of energy independent of the propelling power of the ship and of the ship's electrical system.

(l) (i) The reserve source of energy shall preferably consist of accumulator batteries, which may be charged from the ship's electrical system, and shall under all circumstances be capable of being put into operation rapidly and of operating the reserve transmitter and receiver for at least six hours continuously under normal working conditions besides any of the additional loads mentioned in paragraphs (m) and (n) of this Regulation*.

(ii) The reserve source of energy is required to be of a capacity sufficient to operate simultaneously the reserve transmitter and the VHF installation, when fitted, for at least six hours unless a switching device is fitted to ensure alternate operation only. VHF usage of the reserve source of energy shall be limited to distress, urgency and safety communications. Alternatively, a separate reserve source of energy may be provided for the VHF installation.

(m) The reserve source of energy shall be used to supply the reserve installation and the automatic alarm signal keying device specified in paragraph (r) of this Regulation if it is electrically operated.

The reserve source of energy may also be used to supply—

(i) the radiotelegraph auto alarm;

(ii) the emergency light specified in paragraph (g) of Regulation 9 of this Chapter;

(iii) the direction-finder;

(iv) the VHF installation;

(v) the device for generating the radiotelephone alarm signal, if provided;

(vi) any device, prescribed by the Radio Regulations, to permit changeover from transmission to reception and vice versa.

Subject to the provisions of paragraph (n) of this Regulation, the reserve source of energy shall not be used other than for the purposes specified in this paragraph.

(n) Notwithstanding the provisions of paragraph (m) of this Regulation, the Administration may authorize the use in cargo ships of the reserve source of energy for a small number of low-power emergency circuits which are wholly confined to the upper part of the ship, such as emergency lighting on the boat deck, on condition that these can be readily disconnected if necessary, and that the source of energy is of sufficient capacity to carry the additional load or loads.

* For the purpose of determining the electrical load to be supplied by the reserve source of energy, the following formula is recommended as a guide:

½ of the transmitter current consumption with the key down (mark)
+½ of the transmitter current consumption with the key up (space)
+ current consumption of receiver and additional circuits connected to the reserve source of energy.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(o) Die reserwe-energiebron en sy skakelbord moet so hoog as moontlik in die skip en vir die radio-offisier geredelik toeganklik wees. Die skakelbord moet, waar moontlik, in 'n radiokamer geleë wees of anders moet hy verlig kan word.

(p) Terwyl die skip op see is, moet die akkumulatorbatterye, hetsy hulle van die hoofinstallasie of van die reserwe-installasie deel uitmaak, daagliks in hulle normale toestand van volle lading gebring word.

(q) Alles moet in die werk gestel word om radiosteurings veroorsaak deur elektriese en ander toestelle aan boord sover moontlik te ondersoek en die oorsake daarvan uit te skakel. Indien nodig moet stappe gedoen word om te verseker dat antennes aan uitsaaiontvangers nie die doeltreffende of korrekte werking van die radio-telegraafinstallasie belemmer nie. Besondere aandag moet aan hierdie vereiste geskenk word by die ontwerp van nuwe skepe.

(r) Benewens 'n middel om die radiotelegraafalarmsein met die hand uit te send, moet 'n outomatiese radio-telegraafalarmseinsleuteltoestel verskaf word wat in staat is om met die hoof- en reserwesenders sleutelskakelings te bewerkstellig ten einde die radiotelegraafalarmsein uit te send. Die toestel moet te eniger tyd buite werking gestel kan word ten einde dit moontlik te maak om die sender onmiddellik met die hand te bedien. Indien hierdie sleuteltoestel met elektrisiteit werk, moet hy deur middel van die noodenergiebron bedien kan word.

(s) Indien hy op see nie vir verbindingsdoeleindes gebruik word nie, moet die reserwesender daagliks met behulp van 'n geskikte kunsantenne en minstens een maal gedurende elke reis met behulp van die reserweantenne, indien daar een is, getoets word. Die reserweenergiebron moet ook daagliks getoets word.

(t) Alle uitrusting wat deel van die radiotelegraafinstallasie uitmaak, moet betroubaar wees en moet sodanig gebou wees dat hulle vir instandhoudingsdoeleindes geredelik toeganklik is.

(u) Nieteenstaande die bepalings van Regulasie 4 van hierdie Hoofstuk kan die Administrasie in die geval van vragskepe van minder as 1 600 ton bruto tonnemaat 'n minder strenge toepassing van die volle vereistes van Regulasie 9 van hierdie Hoofstuk en van die huidige Regulasie toestaan: Met dien verstande dat die standaard van die radiotelegraafstasie in geen geval laer mag wees nie as die ekwivalent van dié wat by Regulasie 15 en Regulasie 16 van hierdie Hoofstuk voorgeskryf word vir radiotelefoonstasies, vir sover dié van toepassing is. In die besonder is dit nie nodig dat die Administrasie in die geval van vragskepe van 300 ton bruto tonnemaat en groter maar kleiner as 500 ton brutotonnemaat die volgende vereis nie:

(i) 'n Reserwe-ontvanger;

(ii) 'n reserwe-energiebron in bestaande installasies;

(iii) beskerming van die hoofantenne dat hy nie as gevolg van pietsing breek nie;

(iv) dat die kommunikasiemiddels tussen die radiotelegraafstasie en die brug onafhanklik van die hoofkommunikasiestelsel moet wees;

(v) dat die reikwydte van die sender meer as 75 myl moet wees.

(o) The reserve source of energy and its switchboard shall be as high as practicable in the ship and readily accessible to the radio officer. The switchboard shall, wherever possible, be situated in a radio room; if it is not, it shall be capable of being illuminated.

(p) While the ship is at sea, accumulator batteries, whether forming part of the main installation or reserve installation, shall be brought up to the normal fully charged condition daily.

(q) All steps shall be taken to eliminate so far as is possible the causes of, and to suppress, radio interference from electrical and other apparatus on board. If necessary, steps shall be taken to ensure that the antenna attached to broadcast receivers do not cause interference to the efficient or correct working of the radiotelegraph installation. Particular attention shall be paid to this requirement in the design of new ships.

(r) In addition to a means for manually transmitting the radiotelegraph alarm signal, an automatic radiotelegraph alarm signal keying device shall be provided, capable of keying the main and the reserve transmitters so as to transmit the radiotelegraph alarm signal. The device shall be capable of being taken out of operation at anytime in order to permit immediate manual operation of the transmitter. If electrically operated, this keying device shall be capable of operation from the reserve source of energy.

(s) At sea, the reserve transmitter, if not used for communications, shall be tested daily using a suitable artificial antenna, and at least once during each voyage using the reserve antenna if installed. The reserve source of energy shall also be tested daily.

(t) All equipment forming part of the radiotelegraph installation shall be reliable, and shall be so constructed that it is readily accessible for maintenance purposes.

(u) Notwithstanding the provision of Regulation 4 of this Chapter, the Administration may, in the case of cargo ships of less than 1 600 tons gross tonnage, relax the full requirements of Regulation 9 of this Chapter and the present Regulation, provided that the standard of the radiotelegraph station shall in no case fall below the equivalent of that prescribed under Regulation 15 and Regulation 16 of this Chapter for radiotelephone stations, so far as applicable. In particular, in the case of cargo ships of 300 tons gross tonnage and upwards but less than 500 tons gross tonnage, the Administration need not require—

(i) a reserve receiver;

(ii) a reserve source of energy in existing installations;

(iii) protection of the main antennna against breakage by whipping;

(iv) the means of communication between the radiotelegraph station and the bridge to be independent of the main communication system;

(v) the range of the transmitter to be greater than 75 miles.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 11

Radiotelegraaf-outo-alarms

(a) Enige radiotelegraaf-outo-alarm wat geïnstalleer word na 26 Mei 1965 moet aan die volgende minimum vereistes voldoen:

(i) By afwesigheid van steuring van watter aard ook al moet hy sonder verstelling met die hand, in werking gestel kan word deur enige radiotelegraafalarmsein uitgesend op die radiotelegraafnoodfrekwensie deur die sender van 'n kusstasie, 'n skip se noodsender of 'n reddingsvaartuigsender wat ooreenkomstig die Radioregulasies werk, op voorwaarde dat die sterkte van die sein by die ontvangerinset sterker is as 100 mikrovolts en swakker is as 1 volt.

(ii) By afwesigheid van steuring van watter aard ook al moet hy in werking gestel word deur òf drie òf vier opeenvolgende strepe wanneer die strepe in lengte wissel van 3,5 tot so na moontlik aan 6 sekondes en die russeine in lengte wissel tussen 1,5 sekondes en die laagste bereikbare waarde, wat by voorkeur nie korter as 10 millisekondes moet wees nie.

(iii) Hy mag nie in werking gestel word deur lugsteurings of 'n ander sein as die radiotelegraafalarmsein nie, op voorwaarde dat die ontvange seine nie inderdaad 'n sein vorm wat val binne die toleransiegrense wat in subparagraaf (ii) hierbo aangegee word nie.

(iv) Die selektiwiteit van die radiotelegraaf-outo-alarm moet sodanig wees dat daar oor 'n band wat tot minstens 4 kHz en hoogstens 8 kHz aan elke kant van die radiotelegraafnoodfrekwensie reik, 'n feitlik eenvormige gevoeligheid en buite hierdie band 'n gevoeligheid verskaf word wat so vinnig as moontlik afneem in ooreenstemming het die beste werktuigkundige gebruik.

(v) Indien moontlik moet die radiotelegraaf-outo-alarm homself by die aanwesigheid van lugsteurings of steurende seine outomaties instel sodat hy binne 'n redelik kort tyd die toestand nader waar hy die radiotelegraafalarmsein die maklikste kan onderskei.

(vi) Wanneer hy deur 'n radiotelegraafalarmsein in in werking gestel word of indien die apparaat defek raak, moet die radiotelegraaf-outo-alarm aanhoudend 'n waarskuwing in die radiotelegraafbedienkamer, in die radio-offisier se slaapakkommodasie en op die brug laat hoor. Indien moontlik moet daar ook waarskuwing gegee word indien enige deel van die hele alarmontvangstelsel defek raak. Daar moet slegs een skakelaar wees om die waarskuwing te laat ophou en dié moet in die radiotelegraafbedienkamer wees.

(vii) Met die oog op die gereelde toetsing van die radiotelegraaf-outo-alarm moet die apparaat 'n generator insluit wat vooraf op die radiotelegraafnoodfrekwensie ingestel is, asook 'n sleuteltoestel waarmee 'n radiotelegraafalarmsein van die minimum sterkte soos in subparagraaf (i) hierbo aangedui, voortgebring word. 'n Middel moet ook verskaf word om kopstukke aan te sluit om na seine te luister wat op die radiotelegraaf-outo-alarm ontvang word.

(viii) Die radiotelegraaf-outo-alarm moet bestand wees teen trillings, vogtigheid en temperatuurveranderings wat gelyk is aan die strawwe toestande wat aan boord van skepe ter see ondervind word, en moet in sulke toestande aanhou om te werk.

(b) Voordat 'n nuwe tipe radiotelegraaf-outo-alarm goedgekeur word, moet die betrokke Administrasie hom deur middel van praktiese toetse in diensomstandighede gelyk aan dié wat in die praktyk voorkom, daarvan oortuig dat die apparaat aan die voorskrifte van paragraaf (a) van hierdie Regulasie voldoen.

REGULATION 11

Radiotelegraph auto alarms

(a) Any radiotelegraph auto alarm installed after 26 May 1965 shall comply with the following minimum requirements:

(i) In the absence of interference of any kind it shall be capable of being actuated, without manual adjustment, by any radiotelegraph alarm signal transmitted on the radiotelegraph distress frequency by any coast station, ship's emergency or survival craft transmitter operating in accordance with the Radio Regulations, provided that the strength of the signal at the receiver input is greater than 100 microvolts and less than 1 volt.

(ii) In the absence of interference of any kind, it shall be actuated by either three or four consecutive dashes when the dashes vary in length from 3,5 to as near 6 seconds as possible and the spaces vary in length between 1,5 seconds and the lowest practicable value, preferably not greater than 10 milliseconds.

(iii) It shall not be actuated by atmospherics or by any signal other than the radiotelegraph alarm signal, provided that the received signals do not in fact constitute a signal falling within the tolerance limits indicated in subparagraph (ii) above.

(iv) The selectivity of the radiotelegraph auto alarm shall be such as to provide a practically uniform sensitivity over a band extending not less than 4 kHz and not more than 8 kHz on each side of the radiotelegraph distress frequency and to provide outside this band a sensitivity which decreases as rapidly as possible in conformity with the best engineering practice.

(v) If practicable, the radiotelepragh auto alarm shall, in the presence of atmospherics or interfering signals, automatically adjust itself so that within a reasonably short time it approaches the condition in which it can most readily distinguish the radiotelegraph alarm signal.

(vi) When actuated by a radiotelegraph alarm signal, or in the event of failure of the apparatus, the radiotelegraph auto alarm shall cause a continuous audible warning to be given in the radiotelegraph operating room, in the radio officer's sleeping accommodation and on the bridge. If practicable, warning shall also be given in the case of failure of any part of the whole alarm receiving system. Only one switch for stopping the warning shall be provided and this shall be situated in the radiotelegraph operating room.

(vii) For the purpose of regularly testing the radiotelegraph auto alarm, the apparatus shall include a generator pre-tuned to the radiotelegraph distress frequency and a keying device by means of which a radiotelegraph alarm signal of the minimum strength indicated in subparagraph (i) above is produced. A means shall also be provided for attaching headphones for the purpose of listening to signals received on the radiotelegraph auto alarm.

(viii) The radiotelegraph auto alarm shall be capable of withstanding vibration, humidity and changes of temperature, equivalent to severe conditions experienced on board ships at sea, and shall continue to operate under such conditions.

(b) Before a new type of radiotelegraph auto alarm is approved, the Administration concerned shall be satisfied, by practical tests made under operating conditions equivalent to those obtaining in practice, that the apparatus complies with paragraph (a) of this Regulation.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(c) Op skepe toegerus met 'n radiotelegraaf-outo-alarm moet die radio-offisier, terwyl die skip op see is, die doeltreffendheid daarvan minstens een maal elke 24 uur toets. Indien die alarm nie in werkende toestand is nie, moet die radio-offisier die feit aan die gesagvoerder of aan die offisier op wag op die brug meedeel.

(d) 'n Radio-offisier moet die behoorlike funksionering van die radiotelegraaf-outo-alarmontvanger, met die normale antenne aangekoppel, van tyd tot tyd nagaan deur te luister na seine en hulle te vergelyk met soortgelyke seine wat op die radiotelegraafnoodfrekwensie op die hoofinstallasie ontvang word.

(e) Vir sover doenlik moet die radiotelegraaf-outo-alarm, wanneer hy aan 'n antenne gekoppel is, nie die akkuraatheid van die rigtingsoeker beïnvloed nie.

REGULASIE 12

Rigtingsoekers

(a) (i) Die rigtingbepalingsapparaat vereis by Regulasie 12 van Hoofstuk V moet doeltreffend en in staat wees om seine met 'n minimum ontvangergeruis te ontvang en om peilings te neem waaruit die ware peiling en rigting vasgestel kan word.

(ii) Hy moet in staat wees om seine te ontvang op die radiotelegraaffrekwensies wat by die Radioregulasies vir noodseine en rigtingbepaling en vir maritiemeradiobakens, toegewys is.

(iii) By afwesigheid van steurings moet die rigtingbepalingsapparaat gevoelig wees om noukeurige peiling op 'n sein met 'n veldsterkte van selfs so laag as 50 mikrovolts per meter moontlik te maak.

(iv) Vir sover doenlik moet die rigtingbepalingsapparaat so geleë wees dat doeltreffende peiling so min as moontlik deur meganiese of ander geraas belemmer sal word.

(v) Vir sover doenlik moet die rigtingbepalingsantennestelsel op so 'n wyse opgerig word dat doeltreffende peiling so min as moontlik belemmer sal word deur die nabyheid van ander antennes, laaibome, hysdrade of ander groot metaalvoorwerpe.

(vi) Tussen die rigtingsoeker en die brug moet daar 'n doeltreffende tweerigtingstelsel vir oproepe en mondelinge kommunikasie verskaf word.

(vii) Alle rigtingsoekers moet by eerste installering tot tevredenheid van die Administrasie gekalibreer word. Die kalibrering moet geverifieer word deur middel van kontrolepeilings of deur 'n verdere kalibrering telkens wanneer daar veranderings aangebring word in die posisie van antennes of van enige bouwerke op die dek wat die noukeurigheid van die rigtingsoeker merkbaar mag beïnvloed. Die kalibreringsbesonderhede moet by tussenpose van een jaar, of so na as moontlik aan 'n jaar, gekontroleer word. Aantekening moet gehou word van die kalibrerings asook van die kontrolering van hul noukeurigheid.

(b) (i) Radiotoerusting vir terugdraaiing na russtand op radiotelefoonnoodfrekwensie moet in staat wees om op daardie frekwensie ondubbelsinnige rigtingpeilings te neem binne 'n boog van 30° aan iedere kant van die boeg.

(ii) Wanneer die toerusting wat in hierdie paragraaf genoem word beïnstalleer en getoets word, moet daar behoorlike aandag geskenk word aan die betrokke aanbeveling van die International Radio Consultative Committee (CCIR).

(c) In ships fitted with a radiotelegraph auto alarm, its efficiency shall be tested by a radio officer at least once every 24 hours while at sea. If it is not in working order, the radio officer shall report that fact to the master or officer on watch on the bridge.

(d) A radio officer shall periodically check the proper functioning of the radiotelegraph auto alarm receiver, with its normal antenna connected, by listening to signals and by comparing them with similar signals received on the radiotelegraph distress frequency on the main installation.

(e) As far as practicable, the radiotelegraph auto alarm, when connected to an antenna shall not affect the accuracy of the direction-finder.

REGULATION 12

Direction-finders

(a) (i) The direction-finding apparatus required by Regulation 12 of Chapter V shall be efficient and capable of receiving signals with the minimum of receiver noise and of taking bearings from which the true bearing and direction may be determined.

(ii) It shall be capable of receiving signals on the radiotelegraph frequencies assigned by the Radio Regulations for the purposes of distress and direction-finding and for maritime radio beacons.

(iii) In the absence of interference the direction-finding apparatus shall have a sensitivity sufficient to permit accurate bearings being taken on a signal having a field strength as low as 50 microvolts per metre.

(iv) As far as is practicable, the direction-finding apparatus shall be so located that as little interference as possible from mechanical or other noise will be caused to the efficient determination of bearings.

(v) As far as is practicable, the direction-finding antenna system shall be erected in such a manner that the efficient determination of bearings will be hindered as little as possible by the close proximity of other antennae, derricks, wire halyards or other large metal objects.

(vi) An efficient two-way means of calling and voice communication shall be provided between the direction-finder and the bridge.

(vii) All direction-finders shall be calibrated to the satisfaction of the Administration on first installation. The calibration shall be verified by check bearings or by a further calibration whenever any changes are made in the position of any antennae or of any structures on deck which might affect appreciably the accuracy of the direction-finder. The calibration particulars shall be checked at yearly intervals, or as near thereto as possible. A record shall be kept of the calibrations and of any checks made of their accuracy.

(b) (i) Radio equipment for homing on the radiotelephone distress frequency shall be capable of taking direction-finding bearings on that frequency without ambiguity of sense within an arc of 30 degrees on either side of the bow.

(ii) When installing and testing the equipment referred to in this paragraph due regard should be given to the relevant recommendation of the International Radio Consultative Committee (CCIR).

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(iii) Alle redelike stappe moet gedoen word om die vermoë tot terugdraaiing na russtand te verseker wat deur hierdie paragraaf vereis word. In gevalle waar die vermoë tot terugdraaiing na russtand weens tegniese struikelblokke nie verwesenlik kan word nie, kan die Administrasie aan indiwiduele skepe vrystelling van die vereistes van hierdie paragraaf verleen.

REGULASIE 13

Radiotelegraafinstallasie wat in motorreddingsbote aangebring moet word

(a) Die radiotelegraafinstallasie wat by Regulasie 14 van Hoofstuk III vereis word, moet 'n sender, 'n ontvanger en 'n energiebron insluit. Hy moet só ontwerp wees dat hy in 'n noodgeval deur 'n ongeskoolde persoon gebruik kan word.

(b) Die sender moet in staat wees om op die radiotelegraafnoodfrekwensie uit te send deur gebruik te maak van 'n klas uitsending wat in die Radioregulasies vir daardie frekwensie toegewys is. Die sender moet ook in staat wees om uit te send op die frekwensie en gebruik te maak van 'n klas uitsending wat by die Radioregulasies in die bande tussen 4 000 kHz en 27 500 kHz toegewys is vir gebruik deur reddingsvaartuie.

(c) Indien gemoduleerde uitsending by die Radioregulasies voorgeskryf word, moet die sender 'n modulasiediepte van minstens 70 persent en 'n toonfrekwensie tussen 450 en 1 350 kHz hê.

(d) Benewens 'n sleutel vir uitsending met die hand, moet die sender toegerus wees met 'n outomatiese sleuteltoestel vir die uitsending van die radiotelegraafalarm- en noodseine.

(e) Die sender moet op die radiotelegraafnoodfrekwensie met behulp van die vaste antenne 'n minimum normale reikwydte [soos aangegee in paragraaf (g) van Regulasie 10 van hierdie Hoofstuk] van 25 myl hê*.

(f) Die ontvanger moet in staat wees om die radiotelegraafnoodfrekwensie en die klasse uitsending te ontvang wat in die Radioregulasies vir daardie frekwensie toegewys word.

(g) Die energiebron moet bestaan uit 'n akkumulatorbattery van voldoende vermoë om die sender in normale diensomstandighede vier uur lank onafgebroke van krag te voorsien. Indien die battery van 'n tipe is wat gelaai moet word, moet daar middels beskikbaar wees om hom vanaf die skip se kragbron te laai. Bowendien moet daar 'n middel wees om hom te laai nadat die reddingsboot te water gelaat is.

(h) Wanneer die krag vir die radiotelegraafinstallasie en vir die soeklig wat by Regulasie 14 van Hoofstuk III vereis word, van dieselfde battery verkry word, moet daardie battery voldoende vermoë hê om die ekstra elektrisiteit vir die soeklig te verskaf.

(i) 'n Antenne van die vaste tipe moet verskaf word saam met middels om hom op die groots moontlike hoogte te steun. Indien doenlik moet daarbenewens 'n antenne gedra deur 'n vlieër of 'n ballon verskaf word.

* By afwesigheid van 'n veldsterktemeting kan daar aangeneem word dat hierdie reikwydte verkry word indien die produk van die hoogte van die antenne bo die waterlyn en die antennestroom (effektiewe waarde) 10 meterampères bedra.

(iii) All reasonable steps shall be taken to ensure the homing capability required by this paragraph. In cases where due to technical difficulties the homing capability cannot be achieved, Administrations may grant to individual ships exemptions from the requirements of this paragraph.

REGULATION 13

Radiotelegraph installation for fitting in motor lifeboats

(a) The radiotelegraph installation required by Regulation 14 of Chapter III shall include a transmitter, a receiver and a source of energy. It shall be so designed that it can be used in an emergency by an unskilled person.

(b) The transmitter shall be capable of transmitting on the radiotelegraph distress frequency using a class of emission assigned by the Radio Regulations for that frequency. The transmitter shall also be capable of transmitting on the frequency, and of using a class of emission, assigned by the Radio Regulations for use by survival craft in the bands between 4 000 kHz and 27 500 kHz.

(c) The transmitter shall, if modulated emission is prescribed by the Radio Regulations, have a depth of modulation of not less than 70 per cent and a note frequency between 450 and 1 350 Hz.

(d) In addition to a key for manual transmissions, the transmitter shall be fitted with an automatic keying device for the transmission of the radiotelegraph alarm and distress signals.

(e) On the radiotelegraph distress frequency the transmitter shall have a minimum normal range [as specified in paragraph (g) of Regulation 10 of this Chapter] of 25 miles using the fixed antenna.*

(f) The receiver shall be capable of receiving the radiotelegraph distress frequency and the classes of emission assigned by the Radio Regulations for that frequency.

(g) The source of energy shall consist of an accumulator battery with sufficient capacity to supply the transmitter for four hours continuously under normal working conditions. If the battery is of a type that requires charging, means shall be available for charging it from the ship's power supply. In addition there shall be a means for charging it after the lifeboat has been launched.

(h) When the power for the radiotelegraph installation and the searchlight required by Regulation 14 of Chapter III are drawn from the same battery, it shall have sufficient capacity to provide for the additional load of the searchlight.

(i) A fixed-type antenna will be provided together with means for supporting it at the maximum practicable height. In addition an antenna supported by a kite or balloon shall be provided if practicable.

* In the absence of a measurement of the field strength, it may be assumed that this range will be obtained if the product of the height of the antenna above the water-line and the antenna current (R.M.S. value) is 10 metre-amperes.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(j) Op see moet 'n radio-offisier die sender by tussenpose van 'n week met behulp van 'n geskikte kunsantenne toets en hy moet die battery ten volle laai indien dit van 'n tipe is wat gelaai moet word.

REGULASIE 14

Draagbare radio-apparaat vir reddingsvaartuie

(a) Die apparaat wat kragtens Regulasie 13 van Hoofstuk III vereis word, moet 'n sender, 'n ontvanger, 'n antenne en 'n energiebron insluit. Hy moet só ontwerp wees dat hy in 'n noodgeval deur 'n ongeskoolde persoon gebruik kan word.

(b) Die apparaat moet maklik draagbaar en waterdig wees, in seewater kan dryf en in die see gegooi kan word sonder om beskadig te word. Nuwe uitrusting moet so lig en kompak as moontlik wees en moet liefs sowel in reddingsbote as in reddingsvlotte gebruik kan word.

(c) Die sender moet in staat wees om op die radiotelegraafnoodfrekwensie uit te send deur gebruik te maak van 'n klas uitsending wat in die Radioregulasies vir daardie frekwensie toegewys is, om in die bande tussen 4 000 kHz en 27 500 kHz op die radiotelegraaffrekwensie uit te send, en om 'n klas uitsending te gebruik wat by die Radioregulasies toegewys is aan reddingsvaartuie. Die Administrasie kan egter toelaat dat die sender in staat is om op die radiotelefoonnoodfrekwensie uit te send en om die klas uitsending te gebruik wat by die Radioregulasies vir daardie frekwensie toegewys is, as 'n alternatief vir of benewens uitsending op die radiotelegraaffrekwensie wat by die Radioregulasies in die bande tussen 4 000 kHz en 27 500 kHz vir reddingsvaartuie toegewys is.

(d) Indien gemoduleerde uitsending by die Radioregulasies voorgeskryf word, moet die sender 'n modulasiediepte van minstens 70 persent hê, en in die geval van radiotelegraafuitsending moet hy 'n toonfrekwensie van tussen 450 en 1 350 Hz hê.

(e) Benewens 'n sleutel vir uitsending met die hand, moet die sender toegerus wees met 'n outomatiese sleuteltoestel vir die uitsending van die radiotelegraafalarm- en -noodseine. Indien die sender in staat is om uit te send op die radiotelefoonnoodfrekwensie, moet hy vir die uitsending van die radiotelefoonalarmsein toegerus wees met 'n outomatiese toestel wat aan die vereistes van paragraaf (e) van Regulasie 16 van hierdie Hoofstuk voldoen.

(f) Die ontvanger moet in staat wees om die radiotelegraafnoodfrekwensie en die klasse uitsendings te ontvang wat by die Radioregulasies vir daardie frekwensie toegewys is. Indien die sender in staat is om op die radiotelefoonnoodfrekwensie uit te send, moet die ontvanger ook in staat wees om daardie frekwensie en die klas uitsending te ontvang wat by die Radioregulasies vir daardie frekwensie toegewys is.

(g) Die antenne moet òf selfstandig wees òf in staat wees om deur die mas van 'n reddingsboot op die groots moontlike hoogte gesteun te word. Daarbenewens is dit wenslik dat daar indien moontlik 'n antenne verskaf word wat deur 'n vlieër of 'n ballon gedra word.

(j) At sea a radio officer shall at weekly intervals test the transmitter using a suitable artificial antenna, and shall bring the battery up to full charge if it is of a type which requires charging.

REGULATION 14

Portable radio apparatus for survival craft

(a) The apparatus required by Regulation 13 of Chapter III shall include a transmitter, a receiver, an antenna and a source of energy. It shall be so designed that it can be used in an emergency by an unskilled person.

(b) The apparatus shall be readily portable, watertight, capable of floating in sea water and capable of being dropped into the sea without damage. New equipment shall be as light-weight and compact as practicable and shall preferably be capable of use in both lifeboats and liferafts.

(c) The transmitter shall be capable of transmitting on the radiotelegraph distress frequency using a class of emission assigned by the Radio Regulations for that frequency, and, in the bands between 4 000 kHz and 27 500 kHz, of transmitting on the radiotelegraph frequency, and of using a class of emission assigned by the Radio Regulations for survival craft. However, the Administration may permit the transmitter to be capable of transmitting on the radiotelephone distress frequency, and of using a class of emission assigned by the Radio Regulations for that frequency, as an alternative or in addition to transmission on the radiotelegraph frequency assigned by the Radio Regulations for survival craft in the bands between 4 000 kHz and 27 500 kHz.

(d) The transmitter shall, if modulated emission is prescribed by the Radio Regulations, have a depth of modulation of not less than 70 per cent and in the case of radiotelegraph. emission have a note frequency between 450 and 1 350 Hz.

(e) In addition to a key for manual transmissions, the transmitter shall be fitted with an automatic keying device for the transmission of the radiotelegraph alarm and distress signals. If the transmitter is capable of transmitting on the radiotelephone distress frequency, it shall be fitted with an automatic device, complying with the requirements of paragraph (e) of Regulation 16 of this Chapter, for transmitting the radiotelephone alarm signal.

(f) The receiver shall be capable of receiving the radiotelegraph distress frequency and the classes of emission assigned by the Radio Regulations for that frequency. If the transmitter is capable of transmitting on the radiotelephone distress frequency the receiver shall also be capable of receiving that frequency and a class of emission assigned by the Radio Regulations for that frequency.

(g) The antenna shall be either self-supporting or capable of being supported by the mast of a lifeboat at the maximum practicable height. In addition it is desirable that an antenna supported by a kite or balloon shall be provided if practicable.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(h) Die sender moet 'n voldoende radiofrekwensievermoë* aan die antenne verskaf wat by paragraaf (a) van hierdie regulasie vereis word, en moet sy krag liefs van 'n handgenerator kry. Indien sy elektrisiteit van 'n battery verkry word, moet die battery voldoen aan die voorwaardes deur die Administrasie gestel ten einde te verseker dat hy van 'n duursame tipe is en voldoende vermoë het.

(i) Op see moet 'n radio-offisier of 'n radiotelefoonoperateur, na gelang van die geval, die sender by tussenpose van 'n week met behulp van 'n geskikte kunsantenne toets en hy moet die batterye ten volle laai indien dit van 'n tipe is wat gelaai moet word.

(j) Vir die toepassing van hierdie Regulasie beteken nuwe uitrusting die uitrusting wat na die datum van inwerkingtreding van die huidige Konvensie aan 'n skip verskaf word.

REGULASIE 15

Radiotelefoonstasies

(a) Die radiotelefoonstasie moet in die boonste deel van die skip wees en moet só geleë wees dat hy soveel as moontlik beskut is teen geraas wat die korrekte opvangs van berigte en seine moontlik kan belemmer.

(b) Daar moet doeltreffende kommunikasie tussen die radiotelefoonstasie en die brug wees.

(c) 'n Betroubare uurwerk moet stewig gemonteer word in so 'n posisie dat die hele wyserplaat maklik waargeneem kan word vanaf die radiotelefoonbedienplek.

(d) 'n Betroubare noodlig onafhanklik van die stelsel wat die normale verligting van die radiotelefoonstasie verskaf, moet verskaf en permanent so ingerig word dat hy in staat is om die bedieningskontroles van die radiotelefooninstallasie en die uurwerk wat by paragraaf (c) van hierdie regulasie en die kaart met voorskrifte wat by paragraaf (f) vereis word, bevredigend te verlig.

(e) Wanneer 'n energiebron uit een of meer batterye bestaan, moet die radiotelefoonstasie toegerus wees met 'n middel om die ladingstoestand te bepaal.

(f) 'n Kaart met voorskrifte wat 'n duidelike opsomming gee van die radiotelefoonnoodprosedure moet vertoon word waar dit goed vanaf die radiotelefoonbedienplek gesien kan word.

REGULASIE 16

Radiotelefooninstallasies

(a) Die radiotelefooninstallasie moet uitsendings- en ontvangsapparaat insluit en paslike energiebronne (waarna in die volgende paragrawe onderskeidelik verwys word as "die sender", "die ontvanger," "die radiotelefoonnoodfrekwensie - luisterdiensontvangstoestel" en "die energiebron").

(b) Die sender moet op die radiotelefoonnoodfrekwensie kan uitsend en moet ook in staat wees om op minstens een ander frekwensie in die bande tussen 1 605 kHz en 2 850 kHz uit te send deur gebruik te maak van die klas uitsending wat in die Radioregulasies vir hierdie frekwensies toegewys is. In normale werking moet 'n dubbele sybandoorsending of 'n enkele sybandoorsending met volle draer (dit is A3H) 'n modu-

* Daar kan aangeneem word dat die volgende prestasie vir die doeleindes van hierdie regulasie voldoende sal wees:

'n Inset van minstens 10 watt na die anode van die laaste trap of 'n radiofrekwensielewering van minstens 2,0 watt (A2-uitsending) teen 500 kHz in 'n kunsantenne met 'n effektiewe weerstand van 15 ohms en 100×10^{-12} farads kapasitansie in serie. Die modulasiediepte moet minstens 70 persent wees.

(h) The transmitter shall supply an adequate radio frequency power* to the antenna required by paragraph (a) of this Regulation and shall preferably derive its supply from a hand generator. If operated from a battery, the battery shall comply with conditions laid down by the Administration to ensure that it is of a durable type and is of adequate capacity.

(i) At sea a radio officer or a radiotelephone operator, as appropriate, shall at weekly intervals test the transmitter, using a suitable artificial antenna and shall bring the battery up to full charge if it is of a type which requires charging.

(j) For the purpose of this Regulation, new equipment means equipment supplied to a ship after the date of entry into force of the present Convention.

REGULATION 15

Radiotelephone stations

(a) The radiotelephone station shall be in the upper part of the ship and so located that it is sheltered to the greatest possible extent from noise which might impair the correct reception of messages and signals.

(b) There shall be efficient communication between the radiotelephone station and the bridge.

(c) A reliable clock shall be securely mounted in such a position that the entire dial can be easily observed from the radiotelephone operating position.

(d) A reliable emergency light shall be provided, independent of the system which supplies the normal lighting of the radiotelephone installation, and permanently arranged so as to be capable of providing adequate illumination of the operating controls of the radiotelephone installation, of the clock required by paragraph (c) of this Regulation and of the card of instructions required by paragraph (f).

(e) Where a source of energy consists of a battery or batteries, the radiotelephone station shall be provided with a means of assessing the charge condition.

(f) A card of instructions giving a clear summary of the radiotelephone distress procedure shall be displayed in full view of the radiotelephone operating position.

REGULATION 16

Radiotelephone installations

(a) The radiotelephone installation shall include transmitting and receiving equipment, and appropriate sources of energy (referred to in the following paragraphs as "the transmitter", "the receiver", "the radiotelephone distress frequency watch receiver", and "the source of energy" respectively).

(b) The transmitter shall be capable of transmitting on the radiotelephone distress frequency and on at least one other frequency in the bands between 1 605 kHz and 2 850 kHz, using the classes of emission assigned by the Radio Regulations for these frequencies. In normal operation a double sideband transmission or a single sideband transmission with full carrier (i.e., A3H) shall have a depth of modulation of

* It may be assumed that the purposes of this Regulation will be satisfied by the following performance:

At least 10 watts input to the anode of the final stage or a radiofrequency output of at least 2,0 watts (A2 emission) at 500 kHz into an artificial antenna having an effective resistance of 15 ohms and 100×10^{-12} farads capacitance in series. The depth of modulation shall be at least 70 per cent.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

lasiediepte van minstens 70 persent op sy spitsintensiteit hê. Die modulasie van 'n enkele sybandoorsending met verminderde of onderdrukte draer (A3A, A3J) moet sodanig wees dat die intermodulasieprodukte nie die waardes oorskry wat in die Radioregulasies aangegee word nie.

(c) (i) In die geval van vragskepe van 500 ton bruto tonnemaat en groter maar kleiner as 1 600 ton bruto tonnemaat moet die sender 'n minimum normale reikwydte van 150 myl hê, dit wil sê hy moet in staat wees om oor hierdie afstand duidelik waarneembare seine van skip tot skip gedurende die dag en in normale toestande en omstandighede uit te send.* (Duidelik waarneembare seine sal in normale omstandighede ontvang word indien die effektiewe waarde van die veldsterkte wat deur die ongemoduleerde draaggolf by die ontvanger ontwikkel word, minstens 25 mikrovolts per meter is.)

(ii) In die geval van vragskepe van 300 ton bruto tonnemaat en groter maar kleiner as 500 ton bruto tonnemaat—

(1) moet die sender in die geval van bestaande installasies 'n minimum normale reikwydte van minstens 75 myl hê;

(2) moet die sender in die geval van nuwe installasies 'n vermoë van minstens 15 watt (ongemoduleerde draaggolf) in die antenne kan ontwikkel.

(d) Die sender moet toegerus wees met 'n toestel om die radiotelefoonalarmsein outomaties op te wek wat so ontwerp is dat dit verhoed dat dit per ongeluk opgewek word. Die toestel moet te enigêr tyd buite werking gestel kan word ten einde die onmiddellike uitsending van 'n noodberig moontlik te maak. Reëlings moet getref word om periodiek die behoorlike werking van die toestel op ander frekwensies as die radiotelefoonnoodfrekwensie na te gaan met behulp van 'n geskikte kunsmatige antenne.

(e) Die toestel wat by paragraaf (d) van hierdie regulasie vereis word, moet aan die volgende vereistes voldoen:

(i) Die toleransie van die frekwensie van elke toon moet ± 1,5 persent wees.

(ii) Die toleransie in die duur van elke toon moet ± 50 millisekondes wees.

(iii) Die pouse tussen opeenvolgende tone moet hoogstens 50 millisekondes wees.

(iv) Die verhouding van die amplitude van die sterker toon tot dié van die swakker toon binne die omvang van 1 tot 1,2 wees.

(f) Die ontvanger wat by paragraaf (a) van hierdie regulasie vereis word, moet in staat wees om die radiotelefoonnoodfrekwensie en minstens nog een frekwensie wat in die bande tussen 1 605 kHz en 2 850 kHz vir maritieme radiotelefoonstasies beskikbaar is, te ontvang wanneer gebruik gemaak word van die klas uitsending wat in die Radioregulasies vir hierdie frekwensie toegewys is. Daarbenewens moet die ontvanger dit by gebruik van die klas uitsending wat in die Radioregulasies toegewys word, moontlik maak om sodanige ander frekwensies te ontvang as wat gebruik word vir die radiotelefoniese uitsending van meteorologiese berigte

* By die afwesigheid van veldsterktemetings kan daar aangeneem word dat hierdie reikwydte verkry sal word deur 'n vermoë van 15 watt (ongemoduleerde draaggolf) in die antenne met 'n antennerendement van 27 persent.

at least 70 per cent at peak intensity. Modulation of a single sideband transmission with reduced or suppressed carrier (A3A, A3J) shall be such that the intermodulation products shall not exceed the values given in the Radio Regulations.

(c) (i) In the case of cargo ships of 500 tons gross tonnage and upwards but less than 1 600 tons gross tonnage the transmitter shall have a minimum normal range of 150 miles, i.e., it shall be capable of transmitting clearly perceptible signals from ship to ship by day and under normal conditions and circumstances over this range*. (Clearly perceptible signals will normally be received if the R.M.S. value of the field strength produced at the receiver by the unmodulated carrier is at least 25 microvolts per metre.)

(ii) In the case of cargo ships of 300 tons gross tonnage and upwards but less than 500 tons gross tonnage—

(1) for existing installations the transmitter shall have a minimum normal range of at least 75 miles; and

(2) for new installations the transmitter shall produce a power in the antenna of at least 15 watts (unmodulated carrier).

(d) The transmitter shall be fitted with a device for generating the radiotelephone alarm signal by automatic means so designed as to prevent actuation by mistake. The device shall be capable of being taken out of operation at any time in order to permit the immediate transmission of a distress message. Arrangements shall be made to check periodically the proper functioning of the device on frequencies other than the radiotelephone distress frequency using a suitable artificial antenna.

(e) The device required by paragraph (d) of this Regulation shall comply with the following requirements:

(i) The tolerance of the frequency of each tone shall be ±1,5 per cent.

(ii) The tolerance on the duration of each tone shall be ±50 milliseconds.

(iii) The interval between successive tones shall not exceed 50 milliseconds.

(iv) The ratio of the amplitude of the stronger tone to that of the weaker shall be within the range 1 to 1,2.

(f) The receiver required by paragraph (a) of this Regulation shall be capable of receiving the radiotelephone distress frequency and at least one other frequency available for maritime radiotelephone stations in the bands between 1 605 kHz and 2 850 kHz, using the classes of emission assigned by the Radio Regulations for these frequencies. In addition the receiver shall permit the reception of such other frequencies, using the classes of emission assigned by the Radio Regulations, as are used for the transmission by radiotelephony of meteorological messages and such other

* In the absence of field strength measurements, it may be assumed that this range will be obtained by a power in the antenna of 15 watts (unmodulated carrier) with an antenna efficiency of 27 per cent.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

en sodanige ander mededelings betreffende die veiligheid van navigasie as wat die Administrasie nodig ag. Die ontvanger moet gevoelig genoeg wees om seine deur middel van 'n luidspreker voort te bring wanneer die ontvangerinset slegs 50 mikrovolts bedra.

(g) Die radiotelefoonnoodfrekwensie-luisterdiensontvangstoestel moet vooraf op hierdie frekwensie gestel word. Dit moet voorsien wees van 'n dempeenheid of 'n toestel om die luidspreker stil te maak in die afwesigheid van 'n radiotelefoon-alarmsein. Die toestel moet maklik in- en uitgeskakel kan word, en kan gebruik word wanneer die toestand na die oordeel van die gesagvoerder sodanig is dat die handhawing van die luisterdiens die veilige navigasie van die skip sal belemmer.

(h) Ten einde vinnig oorskakeling van uitsending na ontvangs moontlik te maak wanneer skakeling met die hand geskied moet die kontrole van die skakeltoestel waar moontlik aan die mikrofoon of handmikrotelefoon wees.

(i) Terwyl die skip op see is, moet daar te alle tye 'n hoofenergiebron van voldoende vermoë wees om die installasie oor die normale reikwydte vereis by paragraaf (c) van hierdie Regulasie in werking te hou. Indien batterye verskaf is, moet hulle onder alle omstandighede voldoende vermoë hê om die sender en die ontvanger in normale werksomstandighede minstens ses uur lank onafgebroke te laat werk.* In die geval van installasies op vragskepe van 500 ton bruto tonnemaat en groter maar kleiner as 1 600 ton bruto tonnemaat wat op of na 19 November 1952 aangebring is, moet daar 'n reserwe-energiebron in die boonste deel van die skip aangebring word, tensy die hoofenergiebron daar geleë is.

(j) Indien 'n reserwe-energiebron verskaf is, kan hy slegs gebruik word vir die verskaffing van elektrisiteit vir—

(i) die radiotelefooninstallasie;

(ii) die noodlig wat by paragraaf (d) van Regulasie 15 van hierdie Hoofstuk vereis word; en

(iii) die toestel wat by paragraaf (d) van hierdie regulasie vir die opwekking van die radiotelefoonalarmsein vereis word.

(iv) die bhf-installasie.

(k) Nieteenstaande die bepalings van paragraaf (j) van hierdie regulasie kan die Administrasie magtiging verleen dat die reserwe-energiebron, as daar een is, gebruik word vir die rigtingsoeker, as daar een is, en vir 'n aantal noodstroombane met geringe vermoë wat uitsluitlik tot die boonste deel van die skip beperk is soos die noodligte op die bootdek, op voorwaarde dat die addisionele belastings geredelik ontkoppel kan word en dat die energiebron voldoende vermoë het om hulle te kan dra.

(l) Terwyl die skip op see is, moet elke verskafte battery ten volle gelaai gehou word ten einde aan die vereistes van paragraaf (i) van hierdie Regulasie te voldoen.

(m) 'n Antenne moet verskaf en aangebring word en, indien hy aan twee stutte hang wat geneig is om te piets, moet hy in die geval van skepe van 500 ton bruto

* Ten einde die elektriese belasting te bepaal wat verskaf moet word deur batterye waarvoor vereis word dat hulle in reserwevermoë vir ses uur moet hê, word die volgende formule as leidraad aanbeveel—

½ van die stroomverbruik nodig vir spraakuitsending;
+ stroomverbruik van ontvanger;
+ stroomverbruik van alle addisionele belastings waaraan die batterye in tyd van nood energie mag verskaf.

communications relating to the safety of navigation as may be considered necessary by the Administration. The receiver shall have sufficient sensitivity to produce signals by means of a loudspeaker when the receiver input is as low as 50 microvolts.

(g) The radiotelephone distress frequency watch receiver shall be preset to this frequency. It shall be provided with a filtering unit or a device to silence the loudspeaker in the absence of a radiotelephone alarm signal. The device shall be capable of being easily switched in and out and may be used when, in the opinion of the master, conditions are such that maintenance of the listening watch would interfere with the safe navigation of the ship.

(h) To permit rapid change-over from transmission to reception when manual switching is used, the control for the switching device shall, where practicable, be located on the microphone or the telephone handset.

(i) While the ship is at sea, there shall be available at all times a main source of energy sufficient to operate the installation over the normal range required by paragraph (c) of this Regulation. If batteries are provided they shall under all circumstances have sufficient capacity to operate the transmitter and receiver for at least six hours continuously under normal working conditions*. In installations in cargo ships of 500 tons gross tonnage and upwards but less than 1 600 tons gross tonnage made on or after 19 November 1952, a reserve source of energy shall be provided in the upper part of the ship unless the main source of energy is so situated.

(j) The reserve source of energy, if provided, may be used only to supply—

(i) the radiotelephone installation;

(ii) the emergency light required by paragraph (d) of Regulation 15 of this Chapter;

(iii) the device required by paragraph (d) of this Regulation, for generating the radiotelephone alarm signal; and

(iv) the VHF installation.

(k) Notwithstanding the provisions of paragraph (j) of this Regulation, the Administration may authorize the use of the reserve source of energy, if provided, for a direction finder, if fitted, and for a number of low-power emergency circuits which are wholly confined to the upper part of the ship, such as emergency lighting on the boat deck, on condition that the additional loads can be readily disconnected, and that the source of energy is of sufficient capacity to carry them.

(l) While at sea, any battery provided shall be kept charged so as to meet the requirements of paragraph (i) of this Regulation.

(m) An antenna shall be provided and installed and, if suspended between supports liable to whipping, shall in the case of cargo ships of 500 tons gross

* For the purpose of determining the electrical load to be supplied by batteries required to have six hours reserve capacity, the following formula is recommended as a guide:

½ of the current consumption necessary for speech transmission
+ current consumption of receiver
+ current consumption of all additional loads to which the batteries may supply energy in time of distress or emergency.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

tonnemaat en groter maar kleiner as 1 600 ton bruto tonnemaat beskerm word sodat hy nie breek nie. Daarbenewens moet daar 'n reserwe-antenne wees wat kant en klaar gemonteer is om onmiddellik as plaasvervanger in werking gestel te word, of, wanneer dit nie doenlik is nie, moet daar voldoende antennedraad en isolators wees sodat 'n reserwe-antenne opgerig kan word. Die nodige gereedskap om 'n antenne op te rig, moet ook verskaf word.

REGULASIE 17

Bhf-radiotelefoonstasies

(a) Wanneer 'n bhf-radiotelefoonstasie voorsien word ooreenkomstig Regulasie 18 van Hoofstuk V, moet dit in die bodeel van die skip wees en 'n bhf-radiotelefooninstallasie insluit ooreenkomstig die bepalings van hierdie Regulasie en bestaande uit 'n sender en ontvanger, 'n kragbron wat hulle teen hulle ontwerpvermoë kan laat werk en 'n geskikte antenne vir die doelmatige uitstraling en ontvangs van seine op die werksfrekwensies.

(b) So 'n bhf-installlasie moet voldoen aan die neergelegde vereistes in die Radioregulasies vir toerusting wat gebruik word in die Bhf- Maritieme Mobiele Radiotelefoondiens en moet in staat wees om te werk op die kanale gespesifiseer in die Radioregulasies en soos vereis kan word deur die Kontrakterende Regerings waarna daar verwys word in Regulasie 18 van Hoofstuk V.

(c) Die Kontrakterende Regering moet nie vereis dat die sender se hoëfrekwensie-draaggolfkraglewering meer as 10 watt hoef te wees nie. Die antenne moet sover doenlik sonder obstruksie in alle rigtings wees.*

(d) Beheer van die bhf-kanale wat vir navigasieveiligheid vereis word, moet onmiddellik en gerieflik by die leiposisie op die brug beskikbaar wees, en waar dit nodig is moet die fasiliteite ook beskikbaar wees om radiokommunikasie van die vleuels van die brug af moontlik te maak.

REGULASIE 18

Radiotelefoon-outo-alarms

(a) Die radiotelefoon-outo-alarm moet aan die volgende minimum vereistes voldoen:

(i) Die maksimum respons-frekwensies van die ingestelde stroombane en ander toonseleksietoestelle moet onderhewig wees aan 'n toleransie van ± 1,5 persent in elke geval; en die respons moet nie daal tot onder 50 persent van die maksimum respons vir frekwensies binne 3 persent van die maksimum respons -frekwensie nie;

(ii) in die afwesigheid van geraas en steurings moet die outomatiese ontvangstoerusting vanaf die alarmsein kan werk binne 'n tydperk van minstens vier en hoogstens ses sekondes;

(iii) die outomatiese ontvangsapparaat moet, liefs sonder dat enige verstelling met die hand nodig is tydens enige wagdiensperiode wat die toerusting handhaaf, op die alarmsein reageer in toestande van afwisselende steurings veroorsaak deur atmosferiese steurings en ander kragtige seine benewens die alarmsein;

* Om leiding te gee, word daar veronderstel dat elke skip toegerus sal wees met 'n vertikaal gepolariseerde eenheidswinsantenne op 'n nominale hoogte van 9,15 meter (30 voet) bo die water, 'n sender-hoëfrekwensiekraglewering van 10 watt en 'n ontvangersensitiwiteit van 2 mikrovolts oor die ingangsaansluiters vir 20 db-sein-tot-geruis-verhouding.

tonnage and upwards but less than 1 600 tons gross tonnage be protected against breakage. In addition, there shall be a spare antenna completely assembled for immediate replacement or, where this is not practicable, sufficient antenna wire and insulators to enable a spare antenna to be erected. The necessary tools to erect an antenna shall also be provided.

REGULATION 17

VHF radiotelephone stations

(a) When a VHF radiotelephone station is provided in accordance with Regulation 18 of Chapter V, it shall be in the upper part of the ship and include a VHF radiotelephone installation complying with the provisions of this Regulation and comprising a transmitter and receiver, a source of power capable of actuating them at their rated power levels, and an antenna suitable for efficient radiating and receiving signals at the operating frequencies.

(b) Such a VHF installation shall conform to the requirements laid down in the Radio Regulations for equipment used in the VHF Maritime Mobile Radiotelephone Service and shall be capable of operation on those channels specified by the Radio Regulations and as may be required by the Contracting Government referred to in Regulation 18 of Chapter V.

(c) The Contracting Government shall not require the transmitter R.F. carrier power output to be greater than 10 watts. The antenna shall, in so far as is practicable, have an unobstructed view in all directions.*

(d) Control of the VHF channels required for navigational safety shall be immediately avialable on the bridge convenient to the conning position and, where necessary, facilities should also be available to permit radiocommunications from the wings of the bridge.

REGULATION 18

Radiotelephone auto alarms

(a) The radiotelephone auto alarm shall comply with the following minimum requirements:

(i) The frequencies of maximum response of the tuned circuits, and other tone selecting devices, shall be subject to a tolerance of ±1,5 per cent in each instance; and the response shall not fall below 50 per cent of the maximum response for frequencies within 3 per cent of the frequency of maximum response;

(ii) in the absence of noise and interference, the automatic receiving equipment shall be capable of operating from the alarm signal in a period of not less than four and not more than six seconds;

(iii) the automatic receiving equipment shall respond to the alarm signal, under conditions of intermittent interference caused by atmospherics and powerful signals other than the alarm signal, preferably without any manuel adjustment being required during any period of watch maintained by the equipment;

*For guidance purposes, it is assumed that each ship would be fitted with a vertically polarized unity gain antenna at a nominal height of 9,15 metres (30 feet) above water, a transmitter R.F. power output of 10 watts, and a receiver sensitivity of two microvolts across the input terminals for 20 db signal-to-noise ratio.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(iv) die outomatiese ontvangsapparaat moet nie in werking gestel word deur atmosferiese steurings of ander kragtige seine behalwe die alarmsein nie;

(v) die outomatiese ontvangsapparaat moet doeltreffend wees tot buite die bestek waarbinne spraakoorsendings bevredigend is;

(vi) die outomatiese ontvangsapparaat moet in staat wees om vibrasie, humiditeit, temperatuurveranderings en wisseling in kragtoevoervolts gelyk aan die ergste toestande wat aan boord van skepe op see ervaar word, te weerstaan en in sulke omstandighede aan te hou werk;

(vii) die outomatiese ontvangsapparaat moet sover doenlik aanduidings gee van foute wat dit sou verhoed om tydens die wagdiensure te funksioneer.

(b) Voordat 'n nuwe soort radiotelefoon-outo-alarm goedgekeur word moet die betrokke Administrasie na praktiese toetse wat uitgevoer is in werktoestande ekwivalent aan die wat in die praktyk teëgekom word, tevrede wees dat die apparaat voldoen aan paragraaf (a) van hierdie Regulasie.

DEEL D—RADIODAGBOEKE

REGULASIE 19

Radiodagboeke

(a) Die radiodagboek (dagboek van die radiodiens) wat in die Radioregulasies vereis word vir 'n skip wat met 'n radiotelegraafstasie toegerus is ooreenkomstig Regulasie 3 of Regulasie 4 van hierdie Hoofstuk, moet gedurende die reis in die radiotelegraafbedienkamer gehou word. Elke radio-offisier moet sy naam, die tye waarop hy op wag gaan en van wag af kom, en alle voorvalle wat gedurende sy wag in verband met die radiodiens plaasvind en vir die veiligheid van menselewens op see van belang lyk, in die dagboek opteken. Daarbenewens moet die volgende in die dagboek opgeteken word:

(i) Die inskrywings wat by die Radioregulasies vereis word;

(ii) besonderhede van die onderhoud van die batterye, met inbegrip van 'n rekord van die laai daarvan, in die vorm wat die Administrasie mag voorskryf;

(iii) 'n daaglikse verklaring dat daar aan die voorskrifte van paragraaf (p) van Regulasie 10 van hierdie Hoofstuk voldoen is;

(iv) besonderhede van die toetse van die reserwesender en reserwe-engergiebron wat kragtens paragraaf (s) van Regulasie 10 van hierdie Hoofstuk uitgevoer is;

(v) op skepe wat met 'n radiotelegraaf-outo-alarm toegerus is, besonderhede van toetse wat kragtens paragraaf (c) van Regulasie 11 van hierdie Hoofstuk uitgevoer is;

(vi) besonderhede van die onderhoud van die batterye, met inbegrip van 'n rekord van die laai daarvan (indien dit van toepassing is) wat ooreenkomstig paragraaf (j) van Regulasie 13 van hierdie Hoofstuk vereis word, en besonderhede van die toetse wat ooreenkomstig daardie paragraaf vereis word ten opsigte van die senders wat in motorreddingsbote aangebring is;

(vii) besonderhede van die onderhoud van die batterye, met inbegrip van 'n rekord van die laai daarvan (indien dit van toepassing is) wat ooreenkomstig paragraaf (i) van Regulasie 14 van hierdie Hoofstuk vereis word, en besonderhede van die toetse wat ooreenkomstig daardie paragraaf vereis word ten opsigte van draagbare radio-apparaat vir reddingsvaartuie;

(iv) the automatic receiving equipment shall not be actuated by atmospherics or by strong signals other than the alarm signal;

(v) the automatic receiving equipment shall be effective beyond the range at which speech transmission is satisfactory;

(vi) the automatic receiving equipment shall be capable of withstanding vibration, humidity, changes of temperature and variations in power supply voltage equivalent to the severe conditions experienced on board ships at sea, and shall continue to operate under such conditions;

(vii) the automatic receiving equipment should, as far as practicable, give warning of faults that would prevent the apparatus from performing its normal functions during watch hours.

(b) Before a new type of radiotelephone auto alarm is approved, the Administration concerned shall be satisfied by practical tests, made under operating conditions equivalent to those obtained in practice, that the apparatus complies with paragraph (a) of this Regulation.

PART D—RADIO LOGS

REGULATION 19

Radio logs

(a) The radio log (diary of the radio service) required by the Radio Regulations for a ship which is fitted with a radiotelegraph station in accordance with Regulation 3 or Regulation 4 of this Chapter shall be kept in the radiotelegraph operating room during the voyage. Every radio officer shall enter in the log his name, the times at which he goes on and off watch, and all incidents connected with the radio service which occur during his watch which may appear to be of importance to safety of life at sea. In addition, there shall be entered in the log—

(i) the entries required by the Radio Regulations;

(ii) details of the maintenance, including a record of the charging of the batteries in such form as may be prescribed by the Administration;

(iii) a daily statement that the requirement of paragraph (p) of Regulation 10 of this Chapter has been fulfilled;

(iv) details of the tests of the reserve transmitter and reserve source of energy made under paragraph (s) of Regulation 10 of this Chapter;

(v) in ships fitted with a radiotelegraph auto alarm details of tests made under paragraph (c) of Regulation 11 of this Chapter;

(vi) details of the maintenance of the batteries, including a record of the charging (if applicable) required by paragraph (j) of Regulation 13 of this Chapter, and details of the tests required by that paragraph in respect of the transmitters fitted in motor lifeboats;

(vii) details of the maintenance of the batteries, including a record of the charging (if applicable) required by paragraph (i) of Regulation 14 of this Chapter, and details of the tests required by that paragraph in respect of portable radio apparatus for survival craft;

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(viii) hoe laat die luisterdiens onderbreek is ooreenkomstig paragraaf (d) van Regulasie 6 van hierdie Hoofstuk, tesame met die rede daarvoor en hoe laat die luisterdiens hervat is.

(b) Die radiodagboek (dagboek van die radiodiens) wat by die Radioregulasies vereis word vir 'n skip wat ooreenkomstig Regulasie 4 van hierdie Hoofstuk met 'n radiotelefoonstasie toegerus is, moet gehou word op die plek waar die luisterdiens gehandhaaf word. Elke gekwalifiseerde operateur, en elke gesagvoerder, of offisier of bemanningslid wat 'n luisterdiens waarneem ooreenkomstig Regulasie 7 van hierdie Hoofstuk, moet tesame met sy naam, besonderhede van alle voorvalle wat gedurende sy wag in verband met die radiodiens plaasvind en vir die veiligheid van menselewens op see van belang lyk, in die dagboek opteken. Daarbenewens moet die volgende in die dagboek opgeteken word:

(i) Die besonderhede wat by die Radioregulasies vereis word;

(ii) hoe laat die luisterdiens begin wanneer die skip die hawe verlaat, en hoe laat dit eindig wanneer die skip 'n hawe bereik;

(iii) hoe laat die luisterdiens om die een of ander rede onderbreek word, asook die rede daarvoor, en hoe laat die luisterdiens hervat word;

(iv) besonderhede van die onderhoud van die batterye (as daar is) met inbegrip van 'n rekord van die laai daarvan soos by paragraaf (l) van Regulasie 16 van hierdie Hoofstuk vereis;

(v) besonderhede van die onderhoud van die batterye, met inbegrip van 'n rekord van die laai daarvan (indien dit van toepassing is) soos by paragraaf (i) van Regulasie 14 van hierdie Hoofstuk vereis, en besonderhede van die toetse wat by daardie paragraaf ten opsigte van draagbare radio-apparaat vir reddingsvaartuie vereis word.

(c) radiodagboeke moet beskikbaar wees vir inspeksie deur die amptenare wat deur die Administrasie gemagtig is om sodanige inspeksies uit te voer.

HOOFSTUK V

VEILIGHEID VAN DIE NAVIGASIE

REGULASIE 1

Toepassing

Tensy in hierdie Hoofstuk uitdruklik anders bepaal, is hierdie Hoofstuk van toepassing op alle skepe op alle reise, uitgesonderd oorlogskepe en skepe wat uitsluitlik vaar op die Groot Mere van Noord-Amerika en hul verbindings- en takriviere sover oos as die laer uitgang van die St. Lambertkanaalsluis te Montreal in die provinsie Quebec, Kanada.

REGULASIE 2

Gevaarberigte

(a) Die gesagvoerder van elke skip wat gevaarlike ys, 'n gevaarlike wrak of enige ander regstreekse gevaar vir skeepvaart, of 'n tropiese storm teëkom, of lugtemperature onder vriespunt gepaard met winde van stormsterkte wat swaar ysaansetting aan die bobou van die skip veroorsaak, ondervind, of winde van krag 10 of sterker volgens die skaal van Beaufort teëkom waarvoor geen stormwaarskuwing ontvang is nie, is verplig om die inligting met alle middele tot sy beskikking mee te deel aan skepe in die nabyheid en ook die bevoegde owerheid op die eerste punt op die

(viii) the time at which the listening watch was discontinued in accordance with paragraph (d) of Regulation 6 of this Chapter, together with the reason and the time at which the listening watch was resumed.

(b) The radio log (diary of the radio service) required by the Radio Regulations for a ship which is fitted with a radiotelephone station in accordance with Regulation 4 of this Chapter shall be kept at the place where listening watch is maintained. Every qualified operator, and every master, officer or crew member carrying out a listening watch in accordance with Regulation 7 of this Chapter, shall enter in the log, with his name, the details of all incidents connected with the radio service which occur during his watch which may appear to be of importance to safety of life at sea. In addition, there shall be entered in the log—

(i) the details required by the Radio Regulations;

(ii) the time at which listening watch begins when the ship leaves port, and the time at which it ends when the ship reaches port;

(iii) the time at which listening watch is for any reason discontinued, together with the reason, and the time at which listening watch is resumed;

(iv) details of the maintenance of the batteries (if provided), including a record of the charging required by paragraph (1) of Regulation 16 of this Chapter;

(v) details of the maintenance of the batteries, including a record of the charging (if applicable) required by paragraph (i) of Regulation 14 of this Chapter, and details of the tests required by that paragraph in respect of portable radio apparatus for survival craft.

(c) Radio logs shall be available for inspection by the officers authorized by the Administration to make such inspection.

CHAPTER V

SAFETY OF NAVIGATION

REGULATION 1

Application

This Chapter, unless otherwise expressly provided in this Chapter, applies to all ships on all voyages, except ships of war and ships solely navigating the Great Lakes of North America and their connecting and tributary waters as far east as the lower exit of the St Lambert Lock at Montreal in the Province of Quebec, Canada.

REGULATION 2

Danger messages

(a) The master of every ship which meets with dangerous ice, a dangerous derelict, or any other direct danger to navigation, or a tropical storm, or encounters sub-freezing air temperatures associated with gale force winds causing severe ice accretion on superstructures, or winds of force 10 or above on the Beaufort scale for which no storm warning has been received, is bound to communicate the information by all the means at his disposal to ships in the vicinity, and also to the competent authorities at the first point on the coast

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

kus waarmee hy in verbinding kan tree. Die vorm waarin die inligting gestuur word, is nie voorgeskryf nie. Dit kan uitgesend word in gewone taal (by voorkeur in Engels) of volgens die Internasionale Seinboek. Dit moet aan alle skepe in die nabyheid uitgesaai en na die eerste punt op die kus waarmee daar in verbinding getree kan word, gestuur word met 'n versoek dat dit aan die bevoegde owerheid deurgestuur word.

(b) Elke Kontrakterende Regering moet die nodige stappe doen om te verseker dat, wanneer 'n berig van enige van die gevare genoem in paragraaf (a) van hierdie regulasie ontvang word, dit onverwyld onder die aandag van die betrokkenes gebring en aan ander belanghebbende Regerings meegedeel word.

(c) Die stuur van berigte betreffende die aangegewe gevare kos die betrokke skepe niks.

(d) Alle radioberigte wat ingevolge paragraaf (a) van hierdie Regulasie gestuur word, moet voorafgegaan word deur die veiligheidsein en gebruik moet gemaak word van die prosedure voorgeskryf in die Radioregulasies soos omskryf in Regulasie 2 van Hoofstuk IV.

REGULASIE 3

Inligting wat in gevaarberigte opgeneem moet word

Ondervermelde inligting word in gevaarberigte vereis:

(a) *Ys, wrakke en ander onmiddellike gevare vir die skeepsvaart:*

(i) Die aard van die waargenome ys, wrak of gevaar;
(ii) die posisie van die ys, wrak of gevaar toe dit laas gesien is;
(iii) die datum en die tyd (Greenwichtyd) toe die gevaar laas gesien is.

(b) *Tropiese storms* (orkane in Wes-Indië, tifone in die Chinese See, siklone in die Indiese waters en storms van soortgelyke aard in ander streke):

(i) 'n Mededeling dat 'n tropiese storm teëgekom is. Hierdie verpligting moet breed vertolk word en inligting moet uitgesend word telkens wanneer die gesagvoerder goeie rede het om te glo dat daar 'n tropiese storm in sy omgewing aan die broei is of woed.
(ii) Die datum en die tyd (Greenwichtyd) en die posisie van die skip toe die waarneming gedoen is.
(iii) Soveel van ondervermelde inligting as doenlik moet in die berig opgeneem word—

barometerstand, verkieslik verbeter (meld getal millibar, millimeter, of duim, en of die syfer verbeter of onverbeter is);
barometriese neiging (die verandering in die barometerstand gedurende die vorige drie uur);
die ware windrigting;
windkrag (skaal van Beaufort);
toestand van die see (kalm, matig, ontstuimig, swaar);
deining (laag, matig hoog, hoog) en die ware rigting waaruit dit kom; periode of lengte van die deining (kort, matig lank, lank) is ook nuttig;
ware koers en snelheid van die skip.

(c) *Latere waarnemings.*

Wanneer 'n gesagvoerder 'n tropiese of ander gevaarlike storm gerapporteer het, is dit wenslik, maar nie verpligtend nie dat solank die skip onder die invloed van die storm bly, verdere waarnemings gedoen en, indien moontlik, elke uur, maar in elk geval by tussenposes van hoogstens drie uur, uitgesend word.

with which he can communicate. The form in which the information is sent is not obligatory. It may be transmitted either in plain language (preferably English) or by means of the International Code of Signals. It should be broadcast to all ships in the vicinity and sent to the first point on the coast to which communication can be made, with a request that it be transmitted to the appropriate authorities.

(b) Each Contracting Government will take all steps necessary to ensure that when intelligence of any of the dangers specified in paragraph (a) of this Regulation is received, it will be promptly brought to the knowledge of those concerned and communicated to other interested Governments.

(c) The transmission of messages respecting the dangers specified is free of cost to the ships concerned.

(d) All radio messages issued under paragraph (a) of this Regulation shall be preceded by the Safety Signal, using the procedure as prescribed by the Radio Regulations as defined in Regulation 2 of Chapter IV.

REGULATION 3

Information required in danger messages

The following information is required in danger messages:

(a) *Ice, derelicts and other direct dangers to navigation.*

(i) The kind of ice, derelict or danger observed.

(ii) The position of the ice, derelict or danger when last observed.

(iii) The time and date (Greenwich Mean Time) when danger last observed.

(b) *Tropical storms* (hurricanes in the West Indies, typhoons in the China Sea, cyclones in Indian waters, and storms of a similar nature in other regions).

(i) A statement that a tropical storm has been encountered. This obligation should be interpreted in a broad spirit, and information transmitted whenever the master has good reason to believe that a tropical storm is developing or exists in his neighbourhood.

(ii) Time, date (Greenwich Mean Time) and position of ship when the observation was taken.

(iii) As much of the following information as is practicable should be included in the message:

Barometric pressure, preferably corrected (stating millibars, millimetres, or inches, and whether corrected or uncorrected);
barometric tendency (the change in barometric pressure during the past three hours);
true wind direction;
wind force (Beaufort scale);
state of the sea (smooth, moderate, rough, high);
swell (slight, moderate, heavy) and the true direction from which it comes. Period or length of swell (short, average, long) would also be of value;
true course and speed of ship.

(c) *Subsequent observations.*

When a master has reported a tropical or other dangerous storm, it is desirable, but not obligatory, that further observations be made and transmitted hourly, if practicable, but in any case at intervals of not more than three hours, so long as the ship remains under the influence of the storm.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(d) *Wind van krag* 10 *of sterker volgens die skaal van Beaufort waarvoor geen stormwaarskuwing ontvang is nie.*

Die doel hiermee is om te handel met ander storms as die tropiese storms waarvan in paragraaf (b) van hierdie Regulasie melding gemaak word; wanneer so 'n storm teëgekom word, moet die berig inligting bevat wat dié genoem in daardie paragraaf soortgelyk is maar die besonderhede betreffende die see en deining uitsluit.

(e) *Lugtemperatuur onder vriespunt gepaard met winde van stormsterkte wat swaar ysaansetting aan die bobou van die skip veroorsaak:*

(i) Datum en tyd (Greenwichtyd).
(ii) Lugtemperatuur.
(iii) Seetemperatuur (indien moontlik).
(iv) Windsterkte en -rigting.

Voorbeelde

Ys

TTT Ys. Groot ysberg waargeneem op 4605N., 4410 W., om 0800 G.T. 15 Mei.

Wrakke

TTT Wrak. Wrak waargeneem byna onder water op 4006 N., 1243 W., om 1630 G.T. 21 April.

Gevaar vir die skeepvaart

TTT Skeepvaart. Ligskip Alpha nie op stasie nie. 1800 G.T. 3 Januarie.

Tropiese storm

TTT Storm. 0030 G.T. 18 Augustus. 2004 N., 11354 O. Barometer verbeter 994 millibar, dalende neiging 6 millibar. Wind N.W., krag 9, swaar buie. Hoë oostelike deining. Koers 067, 5 knope.

TTT Storm. Voortekens wys op naderende orkaan. 1300 G.T. 14 September. 2200 N., 7236 W. Barometer verbeter 29,64 duim, dalende neiging 0,015 duim. Wind N.O., krag 8, veelvuldige reënbuie. Koers 035, 9 knope.

TTT Storm. Toestand dui aan dat hewige sikloon ontstaan het. 0200 G.T. 4 Mei 1620 N., 9203 O. Barometer onverbeter 753 millimeter, dalende neiging 5 millimeter. Wind S. ten W., krag 5. Koers 300, 8 knope.

TTT Storm. Tifoon in suidooste. 0300 G.T. 12 Junie. 1812 N., 12605 O. Barometer daal vinnig. Wind word sterker uit noorde.

TTT Storm. Windkrag 11, geen stormwaarskuwing ontvang nie. 0300 G.T. 4 Mei. 4830 N., 30 W. Barometer verbeter 983 millibar, dalende neiging 4 millibar. Wind S.W., krag 11, ruimend. Koers 260, 6 knope.

Ysvorming

TTT Ondervind hewige ysvorming. 1400 G.T. 2 Maart. 69 N., 10 W. Lugtemperatuur 18. Seetemperatuur 29. Wind N.O., krag 8.

REGULASIE 4

Meteorologiese dienste

(a) Die Kontrakterende Regerings verbind hulle om die versameling van meteorologiese gegewens deur skepe op see aan te moedig en om reëlings te tref vir hul ondersoek, verspreiding en uitwisseling op dié wyse wat die geskikste is om die skeepvaart van diens te wees. Administrasies moet die gebruik van instrumente met 'n hoë graad van noukeurigheid aanmoedig en moet op versoek die nagaan van sulke instrumente vergemaklik.

(d) *Winds of force* 10 *or above on the Beaufort scale for which no storm warning has been received.*

This is intended to deal with storms other than the tropical storms referred to in paragraph (b) of this Regulation; when such a storm is encountered, the message should contain similar information to that listed under that paragraph but excluding the details concerning sea and swell.

(e) *Sub-freezing air temperatures associated with gale force winds causing severe ice accretion on superstructures.*

(i) Time and date (Greenwhich Mean Time).
(ii) Air temperature.
(iii) Sea temperature (if practicable).
(iv) Wind force and direction.

Examples

Ice

TTT Ice. Large berg sighted in 4605 N., 4410 W., at 0800 GMT. May 15.

Derelicts

TTT Derelict. Observed derelict almost submerged in 4006 N., 1243 W., at 1630 GMT. April 21.

Danger to navigation

TTT Navigation. Alpha lightship not on station. 1800 GMT. January 3.

Tropical storm

TTT Storm. 0030 GMT. August 18. 2004 N., 11354 E. Barometer corrected 994 millibars, tendency down 6 millibars. Wind NW., force 9, heavy squalls. Heavy easterly swell. Course 067, 5 knots.

TTT Storm. Appearances indicate approach of hurricane. 1300 GMT. September 14. 2200 N., 7236 W. Barometer corrected 29,64 inches, tendency down 0,015 inches. Wind NE., force 8, frequent rain squalls. Course 035, 9 knots

TTT Storm. Conditions indicate intense cyclone has formed. 0200 GMT. May 4. 1620 N., 9203 E. Barometer uncorrected 753 millimetres, tendency down 5 millimetres. Wind S. by W., force 5. Course 300, 8 knots.

TTT Storm. Typhoon to southeast. 0300 GMT. June 12. 1812 N., 12605 E. Barometer falling rapidly. Wind increasing from N.

TTT Storm. Wind force 11, no storm warning received. 0300 GMT. May 4. 4830 N., 30 W. Barometer corrected 983 millibars, tendency down 4 millibars. Wind SW., force 11 veering. Course 260, 6 knots.

Icing

TTT experiencing severe icing. 1400 GMT. March 2. 69 N., 10 W. Air temperature 18. Sea temperature 29. Wind NE., force 8.

REGULATION 4

Meteorological services

(a) The Contracting Governments undertake to encourage the collection of meteorological data by ships at sea and to arrange for their examination, dissemination and exchange in the manner most suitable for the purpose of aiding navigation. Administrations shall encourage the use of instruments of a high degree of accuracy, and shall facilitate the checking of such instruments upon request.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(b) Die Kontrakterende Regerings verbind hulle in die besonder om saam te werk om onderstaande meteorologiese reëlings vir sover doenlik toe te pas:

(i) Om skepe sowel deur die uitsend van radioberigte as deur die vertoning van gepaste seine op kuspunte teen stormwinde, storms en tropiese storms te waarsku.

(ii) Om daagliks deur middel van die radio weerberigte uit te send wat vir die skeepvaart geskik is en wat gegewens omtrent bestaande weer, golwe en ys, asook voorspell ngs en, waar doenlik, voldoende aanvullende inligting bevat om dit moontlik te maak om eenvoudige weerkaarte op see op te stel, en ook om die uitsending van geskikte faksimileeweerkaarte aan te moedig.

(iii) Om sodanige publikasies op te stel en uit te gee as wat vir die doeltreffende uitvoering van meteorologiese werk op die see nodig is, en om, indien moontlik, reëlings te tref om daaglikse weerkaarte vir die inligting van vertrekkende skepe te publiseer en beskikbaar te stel.

(iv) Om reëlings te tref om uitgekose skepe met getoetste instrumente (soos 'n barometer, 'n barograaf, 'n psichrometer en geskikte apparaat vir meting van die seetemperatuur) vir gebruik in hierdie diens toe te rus, en om meteorologiese waarnemings te doen op hoofstandaardtye vir sinoptiese waarnemings by die oppervlakte (minstens vier maal per dag, wanneer omstandighede dit toelaat), en om ander skepe aan te moedig om waarnemings te doen in 'n gewysigde vorm, veral in streke waar daar min skeepsverkeer is; hierdie skepe moet hul waarnemings per radio in belang van die verskillende amptelike meteorologiese dienste uitsend en hulle moet die inligting herhaal in belang van skepe wat in die nabyheid is. Skepe moet aangemoedig word om wanneer hulle, hulle naby 'n tropiese storm of 'n vermeende tropiese storm bevind, waar moontlik meer dikwels waarnemings te doen en inligting uit te saai in gedagte houdende dat skeepsoffisiere se aandag gedurende stormtoestande deur navigasiewerk in beslag geneem word.

(v) Om reëlings te tref vir die ontvangs en uitsending deur kusradiostasies van weerberigte van en na skepe. Skepe wat nie in staat is om regstreeks met die kus in verbinding te tree nie, moet aangemoedig word om hul weerberigte deur weerskepe of deur ander skepe in verbinding met die kus te laat heruitsaai.

(vi) Om alle gesagvoerders aan te moedig om wanneer hulle 'n windsnelheid van 50 knope of meer (krag 10 op die skaal van Beaufort) ondervind, skepe in die nabyheid en ook kusstasies daarvan in kennis te stel.

(vii) Om pogings aan te wend om 'n uniforme prosedure betreffende die reeds genoemde internasionale meteorologiese dienste te verkry en om vir sover doenlik in ooreenstemming te handel met die Tegniese Regulasies en aanbevelings van die Wêreld-Meteorologiese Organisasie, waarheen die Kontrakterende Regerings enige meteorologiese kwessie wat uit die uitvoering van die huidige konvensie ontstaan, vir bestudering en advies kan verwys.

(c) Die inligting waarvoor in hierdie Regulasie voorsiening gemaak word moet verstrek word in die uitsendvorm en uitgesend word in die voorrangsorde voorgeskryf by die Radioregulasies, en gedurende die uitsending van meteorologiese inligting, voorspellings en waarskuwings "aan alle stasies" moet alle skeepstasies voldoen aan die bepalings van die Radioregulasies.

(b) In particular, the Contracting Governments undertake to co-operate in carrying out, as far as practicable, the following meteorological arrangements:

(i) To warn ships of gales, storms and tropical storms, both by the issue of radio messages and by the display of appropriate signals at coastal points.

(ii) To issue daily, by radio, weather bulletins suitable for shipping, containing data of existing weather, waves and ice, forecasts and, when practicable, sufficient additional information to enable simple weather charts to be prepared at sea and also to encourage the transmission of suitable facsimile weather charts.

(iii) To prepare and issue such publications as may be necessary for the efficient conduct of meteorological work at sea and to arrange, if practicable, for the publication and making available of daily weather charts for the information of departing ships.

(iv) To arrange for selected ships to be equipped with tested instruments (such as a barometer, a barograph, a psychrometer, and suitable apparatus for measuring sea temperature) for use in this service, and to take meteorological observations at main standard times for surface synoptic observations (at least four times daily, whenever circumstances permit) and to encourage other ships to take observations in a modified form, particularly when in areas where shipping is sparse; these ships to transmit their observations by radio for the benefit of the various official meteorological services, repeating the information for the benefit of ships in the vicinity. When in the vicinity of a tropical storm, or of a suspected tropical storm, ships should be encouraged to take and transmit their observations at more frequent intervals whenever practicable, bearing in mind navigational preoccupations of ships' officers during storm conditions.

(v) To arrange for the reception and transmission by coast radio stations of weather messages from and to ships. Ships which are unable to communicate direct with shore shall be encouraged to relay their weather messages through ocean weather ships or through other ships which are in contact with shore.

(vi) To encourage all masters to inform ships in the vicinity and also shore stations whenever they experience a wind speed of 50 knots or more (force 10 on the Beaufort scale).

(vii) To endeavour to obtain a uniform procedure in regard to the international meteorological services already specified, and, as far as is practicable, to conform to the Technical Regulations and recommendations made by the World Meteorological Organisation, to which the Contracting Governments may refer for study and advice any meteorological question which may arise in carrying out the present Convention.

(c) The information provided for in this Regulation shall be furnished in form for transmission and transmitted in the order of priority prescribed by the Radio Regulations, and during transmission "to all stations" of meteorological information, forecasts and warnings, all ship stations must conform to the provisions of the Radio Regulations.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(d) Weervoorspellings, waarskuwings, sinoptiese en ander meteorologiese verslae bedoel vir skepe moet ooreenkomstig onderlinge reëlings deur die betrokke Kontrakterende Regerings, uitgesend en versprei word deur die nasionale diens wat die gunstigste geleë is om verskillende sones en gebiede te bedien.

REGULASIE 5

Yswagdiens

(a) Die Kontrakterende Regerings verbind hulle om 'n yswagdiens en 'n diens vir die bestudering en waarneming van ystoestande in die Noord-Atlantiese Oseaan voort te sit. Gedurende die hele ysseisoen moet die suidoostelike, suidelike en suidwestelike grense van die gebiede waar ysberge in die nabyheid van die Groot Banke van Newfoundland voorkom, bewaak word met die doel om verbyvarende skepe van die omvang van hierdie gevaarlike gebied in kennis te stel, om ystoestande in die algemeen te bestudeer, en om hulp te verleen aan skepe en bemannings wat binne die grense van die bedryfsgebied van die patrollieskepe hulp nodig het. Gedurende die res van die jaar moet die bestudering en waarneming van ystoestande volgehou word vir sover dit gerade is.

(b) Skepe en vliegtuie wat vir die yswagdiens en die bestudering en waarneming van ystoestande gebruik word, kan deur die beherende Regering met ander werksaamhede belas word, mits hierdie ander werksaamhede nie hul hoofdoel belemmer of die koste van hierdie diens verhoog nie.

REGULASIE 6

Yswagdiens, beheer en koste

(a) Die Regering van die Verenigde State van Amerika willig in om voort te gaan met die beheer van die yswagdiens en die bestudering en waarneming van ystoestande, met inbegrip van die verspreiding van inligting wat daaruit verkry word. Die Kontrakterende Regerings wat in die besonder by hierdie dienste belang het, verbind hulle om by te dra tot die koste van die instandhouding en verskaffing van hierdie dienste; elke bydrae moet gebaseer word op die totale bruto tonnemaat van die skepe van elke bydraende Regering wat deur die ysberggebiede vaar wat deur die yswagdiens bewaak word. In die besonder verbind elke Kontrakterende Regering met spesiale belang hierby hom om jaarliks tot die koste van die instandhouding en verskaffing van hierdie dienste 'n bedrag by te dra wat bepaal word deur die verhouding van die totale bruto tonnemaat van daardie Kontrakterende Regering se skepe wat gedurende die ysseisoen deur die ysberggebiede vaar wat deur die yswagdiens bewaak word, tot die gesamentlike totale bruto tonnemaat van die skepe van al die bydraende Regerings wat gedurende die ysseisoen deur die ysberggebiede vaar en wat deur die yswagdiens bewaak word. Nie-kontrakterende Regerings wat in die besonder belang by hierdie dienste het, kan op dieselfde grondslae tot die koste van die instandhouding en verskaffing van hierdie dienste bydra. Die beherende Regering sal jaarliks aan elke bydraende Regering 'n opgawe verstrek van die totale koste van die instandhouding en verskaffing van die yswagdiens en van die proporsionele aandeel van elke bydraende Regering.

(b) Elkeen van die bydraende Regerings het die reg om sy bydrae te verander of te staak, en ander belanghebbende Regerings kan hulle verbind om tot die koste by te dra. Die bydraende Regering wat van hierdie reg gebruik maak, bly aanspreeklik vir sy lopende bydrae

(d) Forecasts, warnings, synoptic and other meteorological reports intended for ships shall be issued and disseminated by the national service in the best position to serve various zones and areas, in accordance with mutual arrangements made by the Contracting Governments concerned.

REGULATION 5

Ice patrol service

(a) The Contracting Governments undertake to continue an ice patrol and a service for study and observation of ice conditions in the North Atlantic. During the whole of the ice season the south-eastern, southern and south-western limits of the regions of icebergs in the vicinity of the Grand Banks of Newfoundland shall be guarded for the purpose of informing passing ships of the extent of this dangerous region; for the study of ice conditions in general; and for the purpose of affording assistance to ships and crews requiring aid within the limits of operation of the patrol ships. During the rest of the year the study and observation of ice conditions shall be maintained as advisable.

(b) Ships and aircraft used for the ice patrol service and the study and observation of ice conditions may be assigned other duties by the managing Government, provided that such other duties do not interfere with their primary purpose or increase the cost of this service.

REGULATION 6

Ice patrol, management and cost

(a) The Government of the United States of America agrees to continue the management of the ice patrol service and the study and observation of ice conditions, including the dissemination of information received therefrom. The Contracting Governments specially interested in these services undertake to contribute to the expense of maintaining and operating these services; each contribution to be based upon the total gross tonnage of the vessels of each contributing Government passing through the regions of icebergs guarded by the Ice Patrol; in particular, each Contracting Government specially interested undertakes to contribute annually to the expense of maintaining and operating these services a sum determined by the ratio which the total gross tonnage of that Contracting Government's vessels passing during the ice season through the regions of icebergs guarded by the Ice Patrol bears to the combined total gross tonnage of the vessels of all contributing Governments passing during the ice season through the regions of icebergs guarded by the Ice Patrol. Non-contracting Governments specially interested may contribute to the expense of maintaining and operating these services on the same basis. The managing Government will furnish annually to each contributing Government a statement of the total cost of maintaining and operating the Ice Patrol and of the proportionate share of each contributing Government.

(b) Each of the contributing Governments has the right to alter or discontinue its contribution, and other interested Governments may undertake to contribute to the expense. The contributing Government which avails itself of this right will continue responsible for

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

tot op 1 September na die datum waarop hy kennis gee van sy voorneme om sy bydrae te verander of te staak. Ten einde van die genoemde reg gebruik te kan maak, moet hy die beherende Regering minstens ses maande voor geooemde 1 September daarvan kennis gee.

(c) Indien die Regering van die Verenigde State te eniger tyd hierdie dienste wil staak, of indien een van die bydraende Regerings die wens uitspreek om aanspreeklikheid vir sy geldelike bydrae te laat vaar of om sy bydrae te laat verander, of indien 'n ander Kontrakterende Regering verlang om hom te bind om tot die koste by te dra, moet die bydraende Regerings die aangeleentheid ooreenkomstig hul onderlinge belange reël.

(d) Die bydraende Regerings het die reg om die bepalings van hierdie Regulasie en van Regulasie 5 van hierdie Hoofstuk van tyd tot tyd by onderlinge instemming te wysig na gelang dit wenslik lyk.

(e) Waar hierdie Regulasie bepaal dat 'n maatreël getref kan word na 'n ooreenkoms onder die bydraende Regerings, moet 'n Kontrakterende Regering se voorstelle oor die tref van so 'n maatreël meegedeel word aan die beherende Regering, wat die ander bydraende Regerings moet nader met die doel om vas te stel of hulle sulke voorstelle aanneem, en die uitslae van die navrae wat aldus gedoen is, moet gestuur word aan die ander bydraende Regerings en aan die Kontrakterende Regering wat die voorstelle ingedien het. In die besonder moet die reëlings betreffende bydraes tot die koste van die dienste by tussenposes van hoogstens drie jaar deur die bydraende Regerings hersien word. Die beherende Regering moet die nodige stappe vir hierdie doel aanvoor.

REGULASIE 7

Snelheid in die nabyheid van ys

Wanneer die gesagvoerder van 'n skip berig ontvang van die aanwesigheid van ys op of in die nabyheid van die koers van sy skip, moet hy in die nag teen 'n matige snelheid vaar of sy koers sodanig verander dat hy die gevaargebied deeglik kan vermy.

REGULASIE 8

Roetebepaling

(a) Die gebruik om, veral in sameloopgebiede, roetes te aanvaar met die doel om verkeer te skei, insluitende die vermyding van deurgang deur gebiede wat aangewys is as gebiede wat deur sekere skepe of soorte skepe vermy moet word, het bygedra tot navigasieveiligheid en word vir alle betrokke skepe aanbeveel.

(b) Die Organisasie word erken as die enigste internasionale liggaam vir die instelling en aanvaarding van maatreëls op 'n internasionale vlak wat betref roetebepaling en gebiede wat vermy moet word deur skepe of bepaalde soorte skepe. Hy sal alle relevante inligting vergelyk en onder die Kontrakterende Regerings versprei.

(c) Die seleksie van die roetes en die inisiëring van handelinge in verband daarmee, en die sketsing van wat sameloopgebiede uitmaak, is in die eerste plek die betrokke Regerings se verantwoordelikheid. By die ontwikkeling van roeteskemas wat inbreuk maak op internasionale waters, of sodanige ander skemas wat hulle mag wens aangeneem te word deur die Organisasie, moet hulle die relevante inligting wat die Organisasie publiseer deeglik in ag neem.

its current contribution up to 1 September following the date of giving notice of intention to alter or discontinue its contribution. To take advantage of the said right it must give notice to the managing Government at least six months before the said 1 September.

(c) If, at any time, the United States Government should desire to discontinue these services, or if one of the contributing Governments should express a wish to relinquish responsibility for its pecuniary contribution, or to have its contribution altered, or another Contracting Government should desire to undertake to contribute to the expense, the contributing Governments shall settle the question in accordance with their mutual interests.

(d) The contributing Governments shall have the right by common consent to make from time to time such alterations in the provisions of this Regulation and of Regulation 5 of this Chapter as appear desirable.

(e) Where this Regulation provides that a measure may be taken after agreement among the contributing Governments, proposals made by any Contracting Government for effecting such a measure shall be communicated to the managing Government which shall approach the other contributing Governments with a view to ascertaining whether they accept such proposals, and the results of the enquiries thus made shall be sent to the other contributing Governments and the Contracting Government making the proposals. In particular, the arrangements relating to contributions to the cost of the services shall be reviewed by the contributing Governments at intervals not exceeding three years. The managing Government shall initiate the action necessary to this end.

REGULATION 7

Speed near ice

When ice is reported on or near his course the master of every ship at night is bound to proceed at a moderate speed or to alter his course so as to go well clear of the danger zone.

REGULATION 8

Routing

(a) The practice of following, particularly in converging areas, routes adopted for the purpose of separation of traffic including avoidance of passage through areas designated as areas to be avoided by ships or certain classes of ships or for the purpose of avoiding unsafe conditions, has contributed to the safety of navigation and is recommended for use by all ships concerned.

(b) The Organization is recognized as the only international body for establishing and adopting measures on an international level concerning routing and areas to be avoided by ships or certain classes of ships. It will collate and disseminate to Contracting Governments all relevant information.

(c) The selection of the routes and the initiation of action with regard to them, and the delineation of what constitutes converging areas, will be primarily the responsibility of the Governments concerned. In the development of routing schemes which impinge upon international waters, or such other schemes they may wish adopted by the Organization, they will give due consideration to relevant information published by the Organization.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(d) Kontrakterende Regerings moet hulle invloed gebruik om die gepaste gebruik van die aanvaarde roetes te verseker en moet alles in hulle vermoë doen om te verseker dat daar gebly word by die maatreëls wat die Organisasie in verband met die roetebepaling van skepe aangeneem het.

(e) Kontrakterende Regerings moet ook alle skepe wat vertrek op reise in die omgewing van die Groot Banke van Newfoundland, beweeg om vir sover doenlik die visgronde noord van 43° noorderbreedte te vermy en om óm gebiede te vaar wat na hulle wete of vermoede as gevolg van ys gevaarlik is.

REGULASIE 9

Misbruik van noodseine

Die gebruik van 'n internasionale noodsein met 'n ander doel as om aan te dui dat 'n skip of vliegtuig in nood verkeer, en die gebruik van 'n sein wat met 'n internasionale noodsein verwar kan word, word op elke skip of vliegtuig verbied.

REGULASIE 10

Noodberigte—Verpligtings en prosedure

(a) Die gesagvoerder van 'n skip op see wat uit enige bron 'n sein ontvang dat 'n skip of vliegtuig of 'n reddingsvaartuig daarvan in nood verkeer, is verplig om die persone wat in nood verkeer, in aller yl te hulp te snel en moet hulle, indien moontlik, die wete gee dat hy dit doen. Indien hy nie in staat is nie of in die besondere omstandighede van die geval dit onredelik of onnodig ag om hulle te gaan help, moet hy in die joernaal die rede aangee waarom hy die persone wat in nood verkeer, nie gaan help het nie.

(b) Die gesagvoerder van 'n skip wat in nood verkeer, het die reg om, nadat hy vir sover moontlik oorleg gepleeg het met die gesagvoerders van die skepe wat op sy versoek om hulp geantwoord het, daardie een of meer van hierdie skepe wat na sy mening die beste daartoe in staat is om hulp te verleen, te kommandeer en die gesagvoerder of gesagvoerders van die gekommandeerde skip of skepe is verplig om aan die kommandering gehoor te gee deur sy of hulle vaart in aller yl voort te sit om die persone wat in nood verkeer, te hulp te kom.

(c) Die gesagvoerder van 'n skip word onthef van die verpligting wat hom by paragraaf (a) van hierdie Regulasie opgelê word, wanneer hy verneem dat een of meer ander skepe as sy eie skip gekommandeer is en die kommandering gehoorsaam.

(d) Indien hy van die persone wat in nood verkeer of van die gesagvoerder van 'n ander skip wat sodanige persone bereik het, berig ontvang dat hulp nie meer nodig is nie, onthef dit die gesagvoerder van 'n skip van die verpligting opgelê by paragraaf (a) van hierdie Regulasie en, indien sy skip gekommandeer is, van die verpligting opgelê by paragraaf (b) van hierdie Regulasie.

(e) Die bepalings van hierdie Regulasie maak geen inbreuk op die Internasionale Konvensie vir die unifikasie van sekere reëls betreffende Hulp en Berging op See wat op 23 September 1910 te Brussel geteken is nie, veral nie wat betref die verpligting ingevolge Artikel 11 van daardie Konvensie om hulp te verleen nie.

(d) Contracting Governments will use their influence to secure the appropriate use of adopted routes and will do everything in their power to ensure adherence to the measures adopted by the Organization in connection with routing of ships.

(e) Contracting Governments will also induce all ships proceeding on voyages in the vicinity of the Grand Banks of Newfoundland to avoid, as far as practicable, the fishing banks of Newfoundland north of latitude 43 °N and to pass outside regions known or believed to be endangered by ice.

REGULATION 9

Misuse of distress signals

The use of an international distress signal, except for the purpose of indicating that a ship or aircraft is in distress, and the use of any signal which may be confused with an international distress signal, are prohibited on every ship or aircraft.

REGULATION 10

Distress messages—Obligations and procedures

(a) The master of a ship at sea, on receiving a signal from any source that a ship or aircraft or survival craft thereof is in distress, is bound to proceed with all speed to the assistance of the persons in distress informing them if possible that he is doing so. If he is unable or, in the special circumstances of the case, considers it unreasonable or unnecessary to proceed to their assistance, he must enter in the logbook the reason for failing to proceed to the assistance of the persons in distress.

(b) The master of a ship in distress, after consultation, so far as may be possible, with the masters of the ships which answer his call for assistance, has the right to requisition such one or more of those ships as he considers best able to render assistance, and it shall be the duty of the master or masters of the ship or ships requisitioned to comply with the requisition by continuing to proceed with all speed to the assistance of persons in distress.

(c) The master of a ship shall be released from the obligation imposed by paragraph (a) of this Regulation when he learns that one or more ships other than his own have been requisitioned and are complying with the requisition.

(d) The master of a ship shall be released from the obligation imposed by paragraph (a) of this Regulation, and, if his ship has been requisitioned, from the obligation imposed by paragraph (b) of this Regulation, if he is informed by the persons in distress or by the master of another ship which has reached such persons that assistance is no longer necessary.

(e) The provisions of this Regulation do not prejudice the International Convention for the unification of certain rules with regard to Assistance and Salvage at Sea, signed at Brussels on 23 September 1910, particularly the obligation to render assistance imposed by Article 11 of that Convention.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 11

Seinlampe

Alle skepe van meer as 150 ton bruto tonnemaat moet, wanneer hulle op internasionale reise gebruik word, 'n doeltreffende dagseinlamp aan boord hê, wat nie uitsluitlik van die skip se hoof-elektrisiteitbron afhanklik is nie.

REGULASIE 12

Skeepsnavigasietoerusting

(a) Alle skepe van 1 600 ton bruto tonnemaat en groter moet met 'n tipe radar toegerus wees wat die Administrasie goedgekeur het. Fasiliteite vir die kartering van radarlesings moet op die brug in daardie skepe voorsien word.

(b) Alle skepe van 1 600 ton bruto tonnemaat en groter moet, wanneer hulle op internasionale reise gebruik word, toegerus wees met 'n radiorigtingbepalingsapparaat wat voldoen aan die bepalings van Regulasie 12 van Hoofstuk IV.

Die Administrasie kan enige skip kleiner as 5 000 ton bruto tonnemaat van hierdie vereiste vrystel in gebiede waar hy dit as onredelik of onnodig beskou om sulke apparaat aan boord te hê, na behoorlike inagneming van die feit dat radiorigtingpeilingsapparaat beide van waarde is as navigasie-instrument en as hulpmiddel by die opspoor van skepe, lugvaartuie of oorlewingsvaartuie.

(c) Alle skepe van 1 600 ton bruto tonnemaat en groter moet, wanneer hulle op internasionale reise gebruik word, toegerus wees met 'n tolkompas benewens die magnetiese kompas. Die Administrasie kan enige skip kleiner as 5 000 ton bruto tonnemaat van hierdie vereiste vrystel as hy dit as onredelik of onnodig ag om 'n tolkompas te vereis.

(d) Alle nuwe skepe van 500 ton bruto tonnemaat en groter moet, wanneer hulle op internasionale reise gebruik word, toegerus wees met 'n eggolood.

(e) Hoewel alle redelike stappe gedoen moet word om die apparaat doelmatig in stand te hou, moet foutwerking van die radartoerusting, die tolkompas of die eggolood nie geag word die skip onseewaardig te maak of as rede beskou word om die skip in hawens te vertraag waar 'n hersteldiens nie geredelik beskikbaar is nie.

(f) Alle nuwe skepe van 1 600 ton bruto tonnemaat en groter moet, wanneer hulle op internasionale reise gebruik word, toegerus wees met radioapparaat vir terugdraaiing na russtand op die radiotelefoonnoodfrekwensie, in ooreenstemming met die relevante bepalings van paragraaf (b) van Regulasie 12 van Hoofstuk IV.

REGULASIE 13

Bemanning

Die Kontrakterende Regerings verbind hulself, elkeen ten opsigte van sy nasionale skepe, om maatreëls te handhaaf of, indien nodig, te tref ten einde te verseker dat alle skepe uit die oogpunt van die veiligheid van menselewens op see toereikend en doeltreffend beman word.

REGULASIE 14

Hulpmiddels vir navigasie

Die Kontrakterende Regerings verbind hulle om reëlings te tref vir die oprigting en instandhouding van sodanige hulpmiddels vir navigasie, met inbegrip van radiobakens en elektroniese hulpmiddels, as wat na hul mening deur die hoeveelheid verkeer geregverdig en

REGULATION 11

Signalling lamps

All ships of over 150 tons gross tonnage, when engaged on international voyages, shall have on board an efficient daylight signalling lamp which shall not be solely dependent upon the ship's main source of electrical power.

REGULATION 12

Shipborne navigational equipment

(a) All ships of 1 600 tons gross tonnage and upwards shall be fitted with a radar of a type approved by the Administration. Facilities for plotting radar readings shall be provided on the bridge in those ships.

(b) All ships of 1 600 tons gross tonnage and upwards, when engaged on international voyages, shall be fitted with radio direction-finding apparatus complying with the provisions of Regulation 12 of Chapter IV. The Administration may, in areas where it considers it unreasonable or unnecessary for such apparatus to be carried, exempt any ship of less than 5 000 tons gross tonnage from this requirement, due regard being had to the fact that radio direction-finding apparatus is of value both as a navigational instrument and as an aid to locating ships, aircraft or survival craft.

(c) All ships of 1 600 tons gross tonnage and upwards, when engaged on international voyages, shall be fitted with a gyro-compass in addition to the magnetic compass. The Administration, if it considers it unreasonable or unnecessary to require a gyro-compass, may exempt any ship of less than 5 000 tons gross tonnage from this requirement.

(d) All new ships of 500 tons gross tonnage and upwards, when engaged on international voyages, shall be fitted with an echo-sounding device.

(e) Whilst all reasonable steps shall be taken to maintain the apparatus in an efficient condition, malfunction of the radar equipment, the gyro-compass or the echo-sounding device shall not be considered as making the ship unseaworthy or as a reason for delaying the ship in ports where repair facilities are not readily available.

(f) All new ships of 1 600 tons gross tonnage and upwards, when engaged on international voyages, shall be fitted with radio equipment for homing on the radiotelephone distress frequency complying with the relevant provisions of paragraph (b) of Regulation 12 of Chapter IV.

REGULATION 13

Manning

The Contracting Governments undertake, each for its national ships, to maintain, or, if it is necessary, to adopt, measures for the purpose of ensuring that, from the point of view of safety of life at sea, all ships shall be sufficiently and efficiently manned.

REGULATION 14

Aids to navigation

The Contracting Governments undertake to arrange for the establishment and maintenance of such aids to navigation, including radio beacons and electronic aids as, in their opinion, the volume of traffic justifies

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

deur die mate van gevaar vereis word, en om reëlings te tref dat inligting betreffende hierdie hulpmiddels aan alle belanghebbendes beskikbaar gestel word.

REGULASIE 15

Soek- en reddingswerk

(a) Elke Kontrakterende Regering verbind hom om sorg te dra dat alle nodige reëlings getref word vir 'n kuswag en vir die redding van persone wat om sy kuste op see in nood verkeer. Hierdie reëlings moet die oprigting, bediening en onderhoud insluit van sodanige maritieme veiligheidsfasiliteite as wat met inagneming van die digtheid van die seeverkeer en die navigasiegevare prakties en nodig geag word, en behoort vir sover moontlik toereikende middels te verskaf vir die opsporing en redding van sulke persone.

(b) Elke Kontrakterende Regering verbind hom om inligting beskikbaar te stel betreffende sy bestaande reddingsfasiliteite en beplande veranderings daarin, as daar is.

REGULASIE 16

Reddingseine

Ondervermelde seine moet deur reddingstasies en maritieme reddingseenhede in verbinding met skepe of persone wat in nood verkeer, en deur skepe of persone wat in nood verkeer, in verbinding met reddingstasies en maritieme reddingseenhede gebruik word. Die seine wat vliegtuie op soek- en reddingsondernemings gebruik om aan skepe rigting te gee, word hieronder in paragraaf (d) aangedui. 'n Geïllustreerde tabel waarin ondervermelde seine beskryf word, moet geredelik beskikbaar wees vir die offisier van die wag van elke skip waarop hierdie hoofstuk van toepassing is.

(a) Antwoorde van reddingstasies of maritieme reddingseenhede op noodseine van 'n skip of persoon:

Seine	*Betekenis*
Bedags.—Oranje rooksein of gekombineerde lig- en geluidsein (liggewende knalsein) bestaande uit drie enkele seine wat by tussenposes van ongeveer een minuut afgevuur word. *Snags.*—Vuurpyl met wit sterre bestaande uit drie enkele seine wat by tussenposes van ongeveer een minuut afgevuur word.	"U word gesien—hulp word so spoedig moontlik verleen." (Herhaling van sulke seine het dieselfde betekenis.)

As dit nodig is, kan die dagseine snags of die nagseine bedags gegee word.

(b) Landingseine vir die leiding van klein bote met bemannings of persone wat in nood verkeer:

Sein	*Betekenis*
Bedags.—Vertikale beweging van 'n wit vlag of van die arms of die afvuur van 'n sein met groen sterre of uitsending van die kodeletter "K" (—.—) met 'n lig- of geluidseinapparaat. *Snags.*—Vertikale beweging van 'n wit lig of sinjaalvlam, of die afvuur van 'n sein met groen sterre of uitsending van die kodeletter "K" (—.—) met 'n lig- of geluidseinapparaat. 'n Ligging (aanduiding van rigting) kan gegee word deur 'n vaste wit lig of fakkel op 'n laer vlak en op 'n lyn met die waarnemer te plaas.	"Dit is die beste plek om te land."
Bedags.—Horisontale beweging van 'n wit vlag of arms horisontaal uitgestrek, of die afvuur van 'n sein met rooi sterre of uitsending van die kodeletter "S" (. . .) met 'n lig of geluidseinapparaat. *Snags.*—Horisontale beweging van 'n wit lig of fakkel of die afvuur van 'n sein met rooi sterre of uitsending van die kodeletter "S" (. . .) met 'n lig- of geluidseinapparaat.	"Om hier te land is hoogs gevaarlik."

and the degree of risk requires, and to arrange for information relating to these aids to be made available to all concerned.

REGULATION 15

Search and rescue

(a) Each Contracting Government undertakes to ensure that any necessary arrangements are made for coast watching and for the rescue of persons in distress at sea round its coasts. These arrangements should include the establishment, operation and maintenance of such maritime safety facilities as are deemed practicable and necessary having regard to the density of the seagoing traffic and the navigational dangers and should, so far as possible, afford adequate means of locating and rescuing such persons.

(b) Each Contracting Government undertakes to make available information concerning its existing rescue facilities and the plans for changes therein, if any.

REGULATION 16

Life-saving signals

The following signals shall be used by life-saving stations and maritime rescue units when communicating with ships or persons in distress and by ships or persons in distress when communicating with life-saving stations and maritime rescue units. The signals used by aircraft engaged in search and rescue operations to direct ships are indicated in paragraph (d) below. An illustrated table describing the signals listed below shall be readily available to the officer of the watch of every ship to which this Chapter applies.

(a) Replies from life-saving stations or maritime rescue units to distress signals made by a ship or person:

Signal	*Signification*
By day.—Orange smoke signal or combined light and sound signal (thunderlight) consisting of three single signals which are fired at intervals of approximately one minute. *By night.*—White star rocket consisting of three single signals which are fired at intervals of approximately one minute.	"You are seen—assistance will be given as soon as possible." (Repetition of such signals shall have the same meaning.)

If necessary the day signals may be given at night or the night signals by day.

(b) Landing signals for the guidance of small boats with crews or persons in distress:

Signal	*Signification*
By day.—Vertical motion of a white flag or the arms or firing of a green star-signal or signalling the code letter "K" (—.—) given by light or sound-signal apparatus. *By night.*—Vertical motion of a white light or flare, or firing of a green star-signal or signalling the code letter "K" (—.—) given by light or sound-signal apparatus. A range (indication of direction) may be given by placing a steady white light or flare at a lower level and in line with the observer.	"This is the best place to land."
By day.—Horizontal motion of a white flag or arms extended horizontally or firing of a red star-signal or signalling the code letter "S" (. . .) given by light or sound-signal apparatus. *By night.*—Horizontal motion of a white light or flare or firing of a red star-signal or signalling the code letter "S" (. . .) given by light or sound-signal apparatus.	"Landing here highly dangerous."

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Sein	*Betekenis*
Bedags.—Horisontale beweging van 'n wit vlag, gevolg deur die wit vlag in die grond te steek en 'n ander wit vlag te dra in die rigting wat aangedui moet word of die vertikale afvuring van 'n sein met rooi sterre, en die afvuur van 'n sein met wit sterre in die rigting van die gunstiger landingsplek, of uitsending van die kodeletter "S" (. . .), gevolg deur die kodeletter "R" (.—.) indien 'n gunstiger landingsplek vir die vaartuig wat in nood verkeer, meer na regs van die naderingsrigting geleë is, of die kodeletter "L" (.—. .) indien 'n gunstiger landingsplek vir die vaartuig wat in nood verkeer, meer na links van die naderingsrigting geleë is. *Snags.*—Horisontale beweging van 'n wit lig of fakkel, gevolg deur die wit lig of fakkel op die grond neer te sit en 'n ander wit lig of fakkel te dra in die rigting wat aangedui word, moet of die vertikale afvuring van 'n sein met rooi sterre en die afvuur van 'n sein met wit sterre in die rigting van die gunstiger landingsplek, of uitsending van die kodeletter "S" (. . .) gevolg deur die kodeletter "R" (.—.) indien 'n gunstiger landingsplek vir die vaartuig wat in nood verkeer, meer na regs van die naderingsrigting geleë is, of die kodeletter "L" (.—. .) indien 'n gunstiger landingsplek vir die vaartuig wat in nood verkeer, meer na links van die naderingsrigting geleë is.	"Om hier te land is hoogs gevaarlik. Daar is 'n gunstiger landingsplek in die aangeduide rigting."

(c) Seine wat in verband met reddingsapparaat op die kus gebruik moet word:

Sein	*Betekenis*
Bedags.—Vertikale beweging van 'n wit vlag of van die arms, of die afvuur van 'n sein met groen sterre. *Snags.*—Vertikale beweging van 'n wit lig of fakkel, of die afvuur van 'n sein met groen sterre.	In die algemeen—"Bevestigend." In die besonder— " 'n Vuurpyllyn word gehou." "Stertblok is vasgemaak." "Tros is vasgemaak." "Daar is iemand in die broekboei." "Trek maar."
Bedags.—Horisontale beweging van 'n wit vlag of arms horisontaal uitgestrek, of die afvuur van 'n sein met rooi sterre. *Snags.*—Horisontale beweging van 'n wit lig of fakkel of die afvuur van 'n sein met rooi sterre.	In die algemeen— "Ontkennend." In die besonder— "Verslap die toue." "Hou op met trek."

(d) Seine wat gebruik word deur vliegtuie op soek- en reddingsondernemings om skepe rigting te gee na 'n vliegtuig, skip of persoon wat in nood verkeer (lees verklarende Opmerking hieronder):

(i) Wanneer 'n vliegtuig die volgende prosedures agtereenvolgens uitvoer, beteken dit dat die vliegtuig vir 'n bowatervaartuig rigting gee na 'n vliegtuig of 'n bowatervaartuig wat in nood verkeer:

(1) Minstens een keer om die bowatervaartuig sirkel;

(2) laag vlak voor die boeg die koers van die bowatervaartuig kruis, versnel en snelheid verminder of die toonhoogte van die skroef verander;

(3) in die rigting vlieg waarin die bowatervaartuig gelei word.

Herhaling van hierdie prosedures het dieselfde betekenis.

(ii) Wanneer 'n vliegtuig die volgende prosedure uitvoer, beteken dit dat die hulp van die bowatervaartuig aan wie die sein gerig word, nie meer nodig is nie:

Signal	*Signification*
By day.—Horizontal motion of a white flag, followed by the placing of the white flag in the ground and the carrying of another white flag in the direction to be indicated or firing of a red star-signal vertically and a white star-signal in the direction towards the better landing place or signalling the code letter "S" (. . .) followed by the code letter "R" (.—.) if a better landing place for the craft in distress is located more to the right in the direction of approach or the code letter "L" (.—. .) if a better landing place for the craft in distress is located more to the left in the direction of approach. *By night.*—Horizontal motion of a white light or flare, followed by the placing of the white light or flare on the ground and the carrying of another white light or flare in the direction to be indicated or firing of a red star-signal vertically and a white star-signal in the direction towards the better landing place or signalling the code letter "S" (. . .) followed by code letter "R" (.—.) if a better landing place for the craft in distress is located more to the right in the direction of approach or the code letter "L" (.—. .) if a better landing place for the craft in distress is located more to the left in the direction of approach.	"Landing here highly dangerous. A more favourable location for landing is in the direction indicated."

(c) Signals to be employed in connection with the use of shore life-saving apparatus:

Signal	*Signification*
By day.—Vertical motion of a white flag or the arms or firing of a green star-signal. *By night.*—Vertical motion of a white light or flare or firing of a green star-signal.	In general — "Affirmative" Specifically: "Rocket line is held." "Tail block is made fast." "Hawser is made fast." "Man is in the breeches buoy." "Haul away."
By day.—Horizontal motion of a white flag or arms extended horizontally or firing of a red star-signal. *By night.*—Horizontal motion of a white light or flare or firing of a red star-signal.	In general—"Negative." Specifically: "Slack away." "Avast hauling."

(d) Signals used by aircraft engaged on search and rescue operations to direct ships towards an aircraft, ship or person in distress (see explanatory Note below):

(i) The following procedures performed in sequence by an aircraft mean that the aircraft is directing a surface craft towards an aircraft or a surface craft in distress:

(1) Circling the surface craft at least once;

(2) crossing the projected course of the surface craft close ahead at a low altitude, opening and closing the throttle or changing the propeller pitch;

(3) heading in the direction in which the surface craft is to be directed.

Repetition of such procedures has the same meaning.

(ii) The following procedure performed by an aircraft means that the assistance of the surface craft to which the signal is directed is no longer required:

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Laag vlak agter die bowatervaartuig die volgstroom kruis, versnel en snelheid verminder of die toonhoogte van die skroef verander.

Opmerking.—Die Organisasie sal na gelang nodig vooraf kennis gee van veranderings in hierdie seine.

REGULASIE 17

Loodslere en meganiese loodhysers

Skepe op reise in die loop waarvan daar waarskynlik van die dienste van loodse gebruik gemaak sal word, moet aan die volgende vereistes voldoen:

(a) *Loodslere.*

(i) Die leer moet doelmatig wees om loodse in staat te stel om veilig aan boord en van boord af te gaan, moet skoon en in 'n goeie toestand gehou word en kan deur beamptes en ander persone gebruik word wanneer 'n skip by 'n hawe aankom of dit verlaat.

(ii) Die leer moet bevestig wees in so 'n posisie dat dit verwyder is van enige moontlike afvoere van die skip, dat elke sport stewig teen die skip se kant rus, dat dit sover doenlik verwyder is van die stroomlyne van die skip en sodat die loods veilige en gerieflike toegang tot die skip kan verkry nadat hy minstens 1,5 meter (5 voet) en hoogstens 9 meter (30 voet) geklim het. 'n Enkele leer moet gebruik word wat in staat is om die water te bereik vanaf die punt van toegang tot die skip; by die voorvoorsiening hiervan moet daar deeglik toegelaat word vir alle toestande van belading en trim van die skip en vir 'n teengestelde slagsy van 15 grade. Wanneer die afstand tussen die seevlak en die punt van toegang tot die skip meer as 9 meter (30 voet) is, moet toegang vanaf die loodsleer tot die skip verleen word by wyse van 'n akkommodasieleer of op 'n ander ewe veilige manier.

(iii) Die treetjies van die leer moet—

(1) van hardehout of 'n ander materiaal met ekwivalente eienskappe gemaak wees uit een stuk sonder kwaste, met 'n doelmatige glyvaste oppervlakte; die onderste vier treetjies kan van rubber met die nodige sterkte en onbuigsaamheid gemaak word, of van ander geskikte materiaal met ekwivalente eienskappe;

(2) minstens 480 millimeter (19 duim) lank, 115 millimeter (4½ duim) breed en 25 millimeter (1 duim) dik wees afgesien van enige glyvaste middel;

(3) eweredig gespasieer wees, minstens 300 millimeter (12 duim) en hoogstens 380 millimeter (15 duim) uitmekaar en bevestig op so 'n wyse dat hulle horisontaal sal bly.

(iv) Geen loodsleer moet meer as twee vervangtreetjies hê wat op 'n ander manier in posisie bevestig word as wat gebruik is in die oorspronklike konstruksie van die leer nie, en enige treetjies wat so bevestig is, moet so gou doenlik vervang word deur treetjies wat in posisie gehou word ooreenkomstig die metode wat by die oorspronklike konstruksie van die leer gebruik is. Wanneer enige vervangtreetjie aan die sytoue bevestig word deur middel van kepe in die kant van die treetjie, moet sulke kepe aan die lengtekante van die treetjie wees.

(v) Die sytoue van die leer moet bestaan uit twee onbedekte manilla-toue van minstens 60 millimeter (2¼ duim) in omtrek aan elke kant. Elke tou moet deurlopend wees sonder enige lasplek onderkant die boonste treetjie. Twee mantoue wat behoorlik aan die skip bevestig is en met 'n omtrek van minstens 65 millimeter (2½ duim) en 'n veiligheidstou moet gereed vir gebruik indien dit nodig is, byderhand gehou word.

Crossing the wake of the surface craft close astern at a low altitude, opening and closing the throttle or changing the propeller pitch.

Note.—Advance notification of changes in these signals will be given by the Organization as necessary.

REGULATION 17

Pilot ladders and mechanical pilot hoists

Ships engaged on voyages in the course of which pilots are likely to be employed shall comply with the following requirements:

(a) *Pilot ladders.*

(i) The ladder shall be efficient for the purpose of enabling pilots to embark and disembark safely, kept clean and in good order and may be used by officials and other persons while a ship is arriving at or leaving a port.

(ii) The ladder shall be secured in a position so that it is clear from any possible discharges from the ship, that each step rests firmly against the ship's side, that it is clear so far as is practicable of the finer lines of the ship and that the pilot can gain safe and convenient access to the ship after climbing not less than 1,5 metres (5 feet) and not more than 9 metres (30 feet). A single length of ladder shall be used capable of reaching the water from the point of access to the ship; in providing for this due allowance shall be made for all conditions of loading and trim of the ship and for an adverse list of 15 degrees. Whenever the distance from sea level to the point of access to the ship is more than 9 metres (30 feet), access from the pilot ladder to the ship shall be by means of an accommodation ladder or other equally safe and convenient means.

(iii) The steps of the pilot ladder shall be—

(1) of hardwood, or other material of equivalent properties, made in one piece free of knots, having an efficient non-slip surface; the four lowest steps may be made of rubber of sufficient strength and stiffness or of other suitable material of equivalent characteristics;

(2) not less than 480 millimetres (19 inches) long, 115 millimetres (4½ inches) wide, and 25 millimetres (1 inch) in depth, excluding any non-slip device;

(3) equally spaced not less than 300 millimetres (12 inches) nor more than 380 millimetres (15 inches) apart and be secured in such a manner that they will remain horizontal.

(iv) No pilot ladder shall have more than two replacement steps which are secured in position by a method different from that used in the original construction of the ladder and any steps so secured shall be replaced as soon as reasonably practicable by steps secured in position by the method used in the original construction of the ladder. When any replacement step is secured to the side ropes of the ladder by means of grooves in the sides of the step, such grooves shall be in the longer sides of the step.

(v) The side ropes of the ladder shall consist of two uncovered manilla ropes not less than 60 millimetres (2¼ inches) in circumference on each side. Each rope shall be continuous with no joints below the top step. Two man-ropes properly secured to the ship and not less than 65 millimetres (2½ inches) in circumference and a safety line shall be kept at hand ready for use if required.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(vi) Heglatte van hardehout, of ander materiaal met ekwivalente eienskappe, uit een stuk en minstens 1,8 meter (5 voet 10 duim) lank, op sodanige intervalle aangebring word dat hulle keer dat die loodsleer draai. Die laagste heglat moet by die vyfde treetjie van onder af wees, en die interval tussen enige heglat en die volgende moet hoogstens 9 treetjies wees.

(vii) Middele moet verskaf word om veilige en gerieflike deurgang na of in of van die skip af te verseker tussen die bopunt van die loodsleer of van enige akkommodasieleer of ander toestel wat voorsien is. Waar sodanige deurgang geskied deur 'n hek in die relings of boordwand, moet daar toereikende handrelings voorsien word. Waar sodanige deurgang by wyse van 'n boordwandleer geskied, moet die leer stewig aan die boordwandreling of platform bevestig wees, en twee handrelingstutte moet aangebring word by die punt waar daar aan boord gegaan en die skip verlaat word, minstens 0,7 meter (2 voet 3 duim) en hoogstens 0,8 meter (2 voet 7 duim) vanmekaar. Elke stut moet naby sy basis en op 'n hoër punt stewig aan die skeepstruktuur vas wees, moet minstens 40 millimeter (1½ duim) in deursnee wees en moet strek tot minstens 1,2 meter (3 voet 11 duim) bo die bokant van die boordwand.

(viii) Snags moet beligting verskaf word sodat sowel die loodsleer oorboord en die posisie waar die loods aan boord gaan, toereikend belig is. 'n Reddingsboei toegerus met 'n selfontbrandingslig moet gereed vir gebruik byderhand gehou word. 'n Hystou moet gereed vir gebruik byderhand gehou word indien dit nodig sou word.

(ix) Middels moet verskaf word wat dit moontlik maak om die loodsleer aan iedere kant van die skip te gebruik.

(x) Die optakeling van die leer en die aan boord kom en verlating van die skip deur 'n loods moet onder toesig van 'n verantwoordelike offisier van die skip geskied.

(xi) Waar die konstruksiekenmerke van enige skip, soos byvoorbeeld bufferrepe, die toepassing van enige van hierdie bepalings onmoontlik maak, moet spesiale maatreëls tot tevredenheid van die Administrasie getref word om te verseker dat persone veilig aan boord kan gaan of die skip kan verlaat.

(b) *Meganiese loodshysers:*

(i) 'n Meganiese loodshyser, as daar een is, en sy hulpuitrusting moet van so soort wees wat deur die Administrasie goedgekeur is. Dit moet van sodanige ontwerp en bou wees dat dit verseker dat die loods veilig aan boord gebring of neergelaat kan word, insluitende 'n veilige deurgang vanaf die hyser na die dek en omgekeerd.

(ii) 'n Loodsleer wat voldoen aan die bepalings van paragraaf (a) van hierdie regulasie moet gereed vir onmiddellike gebruik op die dek langs die hyser gebou word.

REGULASIE 18

Bhf-radiotelefoonstasies

Wanneer 'n Kontrakterende Regering vereis dat skepe wat binne 'n gebied onder sy soewereiniteit vaar, toegerus moet wees met 'n baie hoë frekwensie (bhf)-radiotelefoonstasie om te gebruik met 'n stelsel wat hy opgerig het om veilige navigasie te bevorder, moet so 'n stasie voldoen aan die bepalings van Regulasie 17 van Hoofstuk IV en gebruik word ooreenkomstig Regulasie 8 van Hoofstuk IV.

(vi) Battens made of hardwood, or other material of equivalent properties, in one piece and not less than 1,80 metres (5 feet 10 inches) long shall be provided at such intervals as will prevent the pilot ladder from twisting. The lowest batten shall be on the fifth step from the bottom of the ladder and the interval between any batten and the next shall not exceed 9 steps.

(vii) Means shall be provided to ensure safe and convenient passage on to or into and off the ship between the head of the pilot ladder or of any accommodation ladder or other appliance provided. Where such passage is by means of a gateway in the rails or bulwark, adequate handholds shall be provided. Where such passage is by means of a bulwark ladder, such ladder shall be securely attached to the bulwark rail or platform and two handhold stanchions shall be fitted at the point of boarding or leaving the ship not less than 0,70 metre (2 feet 3 inches) nor more than 0,80 metre (2 feet 7 inches) apart. Each stanchion shall be rigidly secured to the ship's structure at or near its base and also at a higher point, shall be not less than 40 millimetres (1½ inches) in diameter and shall extend not less than 1,20 metres (3 feet 11 inches) above the top of the bulwark.

(viii) Lighting shall be provided at night such that both the pilot ladder overside and also the position where the pilot boards the ship shall be adequately lit. A lifebuoy equipped with a self-igniting light shall be kept at hand ready for use. A heaving line shall be kept at hand ready for use if required.

(ix) Means shall be provided to enable the pilot ladder to be used on either side of the ship.

(x) The rigging of the ladder and the embarkation and disembarkation of a pilot shall be supervised by a responsible officer of the ship.

(xi) Where on any ship constructional features such as rubbing bands would prevent the implementation of any of these provisions, special arrangements shall be made to the satisfaction of the Administration to ensure that persons are able to embark and disembark safely.

(b) *Mechanical pilot hoists*

(i) A mechanical pilot hoist, if provided, and its ancillary equipment shall be of a type approved by the Administration. It shall be of such design and construction as to ensure that the pilot can be embarked and disembarked in a safe manner including a safe access from the hoist to the deck and *vice versa.*

(ii) A pilot ladder complying with the provisions of paragraph (a) of this Regulation shall be kept on deck adjacent to the hoist and available for immediate use.

REGULATION 18

VHF radiotelephone stations

When a Contracting Government requires ships navigating in an area under its sovereignty to be provided with a Very High Frequency (VHF) radiotelephone station to be used in conjunction with a system which it has established in order to promote safety of navigation, such station shall comply with the provisions of Regulation 17 of Chapter IV and shall be operated in accordance with Regulation 8 of Chapter IV.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 19

Gebruik van die outomatiese loods

(a) In gebiede met 'n hoë verkeersdigtheid, in toestande waar die sigbaarheid beperk is en in alle ander gevaarlike navigasietoestande waar die outomatiese loods gebruik word, moet dit moontlik wees om onmiddellik oor te skakel na menslike beheer van die skip se stuurapparaat.

(b) In bogenoemde omstandighede moet dit vir die offisier van die wag moontlik wees om sonder versuim die dienste beskikbaar te hê van 'n gekwalifiseerde stuurman wat te alle tye gereed moet wees om stuurbeheer oor te neem.

(c) Die oorskakeling vanaf outomatiese na handstuur en omgekeerd moet gedoen word onder toesig van 'n verantwoordelike offisier.

REGULASIE 20

Seevaartpublikasies

Alle skepe moet toereikende en bygewerkte kaarte, vaaraanwysings, lyste van ligte, kennisgewings vir seevaarders, getytabelle en alle ander skeepvaartpublikasies wat vir die voorgenome reis nodig is, aan boord hê.

REGULASIE 21

Internasionale seinboek

Alle skepe wat ingevolge die huidige Konvensie 'n radiotelegraaf- of 'n radiotelefooninrigting aan boord moet hê, moet die Internasionale Seinboek aan boord hê. Die publikasie moet ook aan boord van enige ander skip wees wat na die Administrasie se oordeel nodig het om dit te gebruik.

HOOFSTUK VI

VERVOER VAN GRAAN

DEEL A—ALGEMENE BEPALINGS

REGULASIE 1

Toepassing

Tensy uitdruklik anders bepaal, is hierdie Hoofstuk, insluitende Dele A, B, en C, van toepassing op die vervoer van graan in alle skepe waarop die huidige Regulasies van toepassing is.

REGULASIE 2

Definisies

(a) Die woord "graan" sluit in koring, mielies, hawer, rog, gars, rys, peulvrugte, sade en verwerkte vorme daarvan waarvan die gedrag soortgelyk is aan dié van graan in sy natuurlike staat.

(b) Die term "gevulde afdeling" verwys na enige kompartement waarin die massa graan op sy hoogs moontlike vlak is na die inskeping en trimming soos vereis ingevolge Regulasie 3.

(c) Die term "gedeeltelik gevulde afdeling" verwys na en enige kompartement waarin massagraan nie op die wyse voorgeskryf in paragraaf (b) van hierdie Regulasie ingeskeep is nie.

(d) Die term "oorstromingshoek" (θ_f) 'n slagsyhoek waarteen openinge in die romp, bobou of dekhuise, wat nie weerdig gesluit kan word nie, begrawe raak. By die toepassing van hierdie definisie hoef klein openinge waardeur progressiewe oorstroming nie kan plaasvind nie, nie as oop beskou te word nie.

REGULATION 19

Use of the automatic pilot

(a) In areas of high traffic density, in conditions of restricted visibility and in all other hazardous navigational situations where the automatic pilot is used, it shall be possible to establish human control of the ship's steering immediately.

(b) In circumstances as above, it shall be possible for the officer of the watch to have available without delay the services of a qualified helmsman who shall be ready at all times to take over steering control.

(c) The change-over from automatic to manual steering and *vice versa* shall be made by or under the supervision of a responsible officer.

REGULATION 20

Nautical publications

All ships shall carry adequate and up-to-date charts, sailing directions, lists of lights, notices to mariners, tide tables and all other nautical publications necessary for the intended voyage.

REGULATION 21

International code of signals

All ships which in accordance with the present Convention are required to carry a radiotelegraph or a radiotelephone installation shall carry the International Code of Signals. This publication shall also be carried by any other ship which in the opinion of the Administration has a need to use it.

CHAPTER VI

CARRIAGE OF GRAIN

PART A—GENERAL PROVISIONS

REGULATION 1

Application

Unless expressly provided otherwise, this Chapter, including Parts A, B and C, applies to the carriage of grain in all ships to which the present Regulations apply.

REGULATION 2

Definitions

(a) The term "grain" includes wheat, maize (corn), oats, rye, barley, rice, pulses, seeds and processed forms thereof, whose behaviour is similar to that of grain in its natural state.

(b) The term "filled compartment" refers to any compartment in which, after loading and trimming as required under Regulation 3, the bulk grain is at its highest possible level.

(c) The term "partly filled compartment" refers to any compartment wherein bulk grain is not loaded in the manner prescribed in paragraph (b) of this Regulation.

(d) The term "angle of flooding" (θ_f) means an angle of heel at which openings in the hull, superstructures or deckhouses, which cannot be closed weathertight, immerse. In applying this definition, small openings through which progressive flooding cannot take place need not be considered as open.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 3

Trimming van graan

Alle nodige en redelike trimming moet uitgevoer word om alle vrye graanoppervlaktes gelyk te maak en om die uitwerking van graanskuiwing tot die minimum te beperk.

(a) In elke "gevulde afdeling" moet die massagraan getrim word om al die ruimtes onder die dekke en luikdeksels tot die hoogs moontlike vlak te vul.

(b) Na inskeping moet alle vrye graanoppervlaktes in "gedeeltelik gevulde afdelings" gelyk wees.

(c) Die Administrasie wat die magtigingsdokument uitreik kan ingevolge Regulasie 9 van hierdie Hoofstuk vrystelling van trimming verleen in dié gevalle waar die onderdekse leegteafmetings wat ontstaan deur die vrye vloei van graan in 'n afdeling in, wat voorsien kan wees van toevoerkanale, geperforeerde dekke of ander dergelike middele, tot sy tevredenheid in berekening gebring word wanneer die leegtedieptes uitgewerk word.

REGULASIE 4

Vereistes betreffende intakte stabiliteit

(a) Die berekeninge wat deur hierdie Regulasie vereis word, moet gegrond wees op die stabiliteitsinligting wat verskaf word ooreenkomstig Regulasie 19 van Hoofstuk II-1 van die huidige Konvensie of ooreenkomstig die vereistes van die Administrasie wat die magtigingsdokument ingevolge Regulasie 10 van hierdie Hoofstuk uitreik.

(b) Dwarsdeur die reis moet daar getoon word dat die intakte stabiliteits-eienskappe van enige skip wat massagraan vervoer, ten minste aan die volgende kriteria voldoen, na inagneming op die wyse wat in Deel B beskryf word, van die slagsymomente weens graanskuiwing:

(i) Die slagsyhoek weens graanskuiwing moet hoogstens 12 grade wees, behalwe dat die Administrasie wat die magtiging ingevolge Regulasie 10 van hierdie Hoofstuk verleen, 'n kleiner slagsyhoek kan vereis indien hy meen dat die ervaring dit as nodig bewys het*;

(ii) in die statiese stabiliteits-diagram moet die netto of oorblywende oppervlakte tussen die slagsy-as-kurwe en die herstel-as-kurwe tot by die slagsyhoek met die maksimum verskil tussen die ordinate van die twee kurwes, of 40 grade of die "oorstromingshoek" (θ_f), watter een ook al die kleinste is, in alle toestande van belading minstens 0,075 meter-radiale wees; en

(iii) die aanvanklike metasentriese hoogte, na korreksie vir die vrye oppervlak-uitwerking van vloeistowwe in tenks, moet minstens 0,3 meter wees.

(c) Indien die Kontrakterende Regering van die land van die inskepingshawe dit vereis, moet die gesagvoerder, voordat hy massagraan inskeep, 'n demonstrasie lewer van die skip se vermoë om op alle stadiums van enige vaart te voldoen aan die stabiliteitskriteria soos vereis ingevolge paragraaf (b) van hierdie Regulasie deur gebruik te maak van die inligting wat goedgekeur en beskikbaar gestel is ingevolge Regulasies 10 en 11 van hierdie Hoofstuk.

(d) Na inskeping moet die gesagvoerder seker maak dat die skip regop is voordat hy uitvaar.

* Die toelaatbare slagsyhoek mag byvoorbeeld beperk word tot die slagsyhoek waarteen die rand van die oop dek in kalm water onder water sou wees.

REGULATION 3

Trimming of grain

All necessary and reasonable trimming shall be performed to level all free grain surfaces and to minimize the effect of grain shifting.

(a) In any "filled compartment", the bulk grain shall be trimmed so as to fill all the spaces under the decks and hatch covers to the maximum extent possible.

(b) After loading, all free grain surfaces in "partly filled compartments" shall be level.

(c) The Administration issuing the document of authorization may, under Regulation 9 of this Chapter, grant dispensation from trimming in those cases where the underdeck void geometry resulting from free flowing grain into a compartment, which may be provided with feeding ducts, perforated decks or other similar means, is taken into account to its satisfaction when calculating the void depths.

REGULATION 4

Intact stability requirements

(a) The calculations required by this Regulation shall be based upon the stability information provided in accordance with Regulation 19 of Chapter II-1, of the present Convention, or with the requirements of the Administration issuing the document of authorization under Regulation 10 of this Chapter.

(b) The intact stability characteristics of any ship carrying bulk grain shall be shown to meet, throughout the voyage, at least the following criteria after taking into account in the manner described in Part B, the heeling moments due to grain shift:

(i) The angle of heel due to the shift of grain shall be not greater than 12 degrees except that an Administration giving authorization in accordance with Regulation 10 of this Chapter may require a lesser angle of heel if it considers that experience shows this to be necessary*;

(ii) in the statical stability diagram, the net or residual area between the heeling arm curve and the righting arm curve up to the angle of heel of maximum difference between the ordinates of the two curves, or 40 degrees or the "angle of flooding" (θ_f), whichever is the least, shall in all conditions of loading be not less than 0,075 metre-radians; and

(iii) the initial metacentric height, after correction for the free surface effects of liquids in tanks, shall be not less than 0,30 metre.

(c) Before loading bulk grain the master shall, if so required by the Contracting Government of the country of the port of loading, demonstrate the ability of the ship at all stages of any voyage to comply with the stability criteria required by paragraph (b) of this Regulation using the information approved and issued under Regulations 10 and 11 of this Chapter.

(d) After loading, the master shall ensure that the ship shall be upright before proceeding to sea.

* For example, the permissible angle of heel might be limited to the angle of heel at which the edge of the weather deck would be immersed in still water.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 5

Langsskeepse verdelings en pierings

(a) In beide "gevulde afdelings" en "gedeeltelik gevulde afdelings" kan langsskeepse verdelings voorsien word as middel om òf die teengestelde slagsy-effek van graanskuiwing teë te werk òf om die diepte van vrag te beperk wat gebruik word om die graanoppervlakte te stabiliseer. Sulke verdelings moet graandig geïnstalleer word en gebou wees ooreenkomstig die bepalings van Seksie I van Deel C van hierdie Hoofstuk.

(b) Indien 'n verdeling in 'n "gevulde afdeling" aangebring word om die teengestelde slagsy-effek van graanskuiwing teë te werk, moet dit—

(i) in 'n tussendekse afdeling van dek tot dek strek; en

(ii) in 'n skeepsruim ondertoe strek vanaf die onderkant van die dek of luikdeksels soos beskryf in Seksie II van Deel B van hierdie Hoofstuk.

Behalwe in die geval van lynsaad en ander saad met dergelike eienskappe, kan 'n langsskeepse verdeling onder 'n luikgat vervang word deur 'n piering wat gevorm is op die wyse wat in Seksie I van Deel C van hierdie Hoofstuk beskryf word.

(c) Indien 'n verdeling in 'n "gedeeltelike gevulde afdeling" aangebring word, moet dit strek vanaf een agtste van die maksimum wydte van die afdeling bo die vlak van die graanoppervlakte tot by dieselfde afstand onder die graanoppervlakte. Wanneer dit gebruik word om die diepte van die bobelading te beperk, moet die hoogte van die middellynverdeling minstens 0,6 meter bo die gelyk graanoppervlaktes wees.

(d) Verder kan die teengestelde slagsy-effek van graanskuiwing verminder word deur die vleuels en ente van 'n afdeling stewig te stu met graan in sakke of ander geskikte vrag wat genoegsaam weerhou word om te skuif.

REGULASIE 6

Bevestiging

(a) Tensy die teengestelde slagsy-effek weens graanskuiwing ooreenkomstig hierdie Regulasies in berekening gebring word, moet die oppervlak van die massagraan in enige "gedeeltelike gevulde afdeling" gelyk wees en afgedek word met styfgepakte sakke graan wat reik tot 'n hoogte van minstens een sestiende van die maksimum wydte van die vrye graanoppervlakte of 1,2 meter, watter ook al die hoogste is. In plaas van graan in sakke kan ander geskikte vrag wat ten minste dieselfde druk uitoefen, gebruik word.

(b) Die graan in sakke of die ander geskikte vrag moet verstewig word op die wyse wat in Seksie II van Deel C van hierdie Hoofstuk beskryf word. So nie, kan die massagraan se oppervlak bevestig word deur belegstukke en woeltoue soos dit in daardie seksie beskryf word.

REGULASIE 7

Vulskagte en -kokers

Indien vulskagte of -kokers aangebring word, moet daar behoorlik rekening gehou word met die uitwerkings daarvan wanneer die slagsymomente bereken word ooreenkomstig Seksie III van Deel B van hierdie Hoofstuk. Die sterkte van die verdelings wat die grense van sulke vulskagte vorm, moet voldoen aan die bepalings van Seksie I van Deel C van hierdie Hoofstuk.

REGULATON 5

Longitudinal divisions and saucers

(a) In both "filled compartments" and "partly filled compartments", longitudinal divisions may be provided as a device either to reduce the adverse heeling effect of grain shift or to limit the depth of cargo used for securing the grain surface. Such divisions shall be fitted grain-tight and constructed in accordance with the provisions of Section I of Part C of this Chapter.

(b) In a "filled compartment", a division, if fitted to reduce the adverse effects of grain shift, shall—

(i) in a 'tween-deck compartment extend from deck to deck; and

(ii) in a hold extend downwards from the underside of the deck or hatch covers as described in Section II of Part B of this Chapter.

Except in the case of linseed and other seeds having similar properties, a longitudinal division beneath a hatchway may be replaced by a saucer formed in the manner described in Section I of Part C of this Chapter.

(c) In a "partly filled compartment", a division, if fitted, shall extend from one-eighth of the maximum breadth of the compartment above the level of the grain surface and to the same distance below the grain surface. When used to limit the depth of overstowing, the height of the centreline division shall be at least 0,6 metre above the level grain surface.

(d) Furthermore, the adverse heeling effects of grain shift may be reduced by tightly stowing the wings and ends of a compartment with bagged grain or other suitable cargo adequately restrained from shifting.

REGULATION 6

Securing

(a) Unless account is taken of the adverse heeling effect due to grain shift in accordance with these Regulations, the surface of the bulk grain in any "partly filled compartment" shall be level and topped off with bagged grain tightly stowed and extending to a height of not less than one-sixteenth of the maximum breadth of the free grain surface or 1,2 metres, whichever is the greater. Instead of bagged grain, other suitable cargo exerting at least the same pressure may be used.

(b) The bagged grain or such other suitable cargo shall be supported in the manner described in Section II of Part C of this Chapter. Alternatively, the bulk grain surface may be secured by strapping or lashing as described in that Section.

REGULATON 7

Feeders and trunks

If feeders or trunks are fitted, proper account shall be taken of the effects thereof when calculating the heeling moments as described in Section III of Part B of this Chapter. The strength of the divisions forming the boundaries of such feeders shall conform with the provisions of Section I of Part C of this Chapter.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 8

Gekombineerde reëlings

Onderruime en tussendekse ruimtes in verband daarmee kan as een afdeling gelaai word, mits daar behoorlik rekening gehou word met die vloei van graan in die onderste ruimtes in wanneer die teengestelde slagsymomente bereken word.

REGULASIE 9

Toepassing van Dele B en C

'n Administrasie of 'n Kontrakterende Regering namens 'n Administrasie kan 'n afwyking van die opvattings in Dele B en C van hierdie Hoofstuk magtig waar hy dit as geregverdig ag met inagneming van die bepalings betreffende inskeping of die strukturele inrigting, solank daar voldoen word aan die stabiliteitskriteria in paragraaf (b) van Regulasie 4 van hierdie Hoofstuk. Waar sodanige magtiging ingevolge hierdie Regulasie verleen word, moet die besonderhede in die magtigingsdokument of in die graaninskepingsdata ingesluit word.

REGULASIE 10

Magtiging

(a) Vir elke skip wat ooreenkomstig Regulasies van hierdie Hoofstuk gelaai word moet 'n magtigingsdokument deur òf die Administrasie of 'n organisasie wat hy erken, òf 'n Kontakterende Regering namens die Administrasie uitgereik word. Dit moet as getuienis aanvaar word dat die skip in staat is om aan die vereistes van hierdie Regulasies te voldoen.

(b) Die dokument moet die graaninskepingstabiliteitsboekie vergesel en daarna verwys om die gesagvoerder in staat te stel om aan die vereistes van paragraaf (c) van Regulasie 4 van hierdie Hoofstuk te voldoen. Hierdie boekie moet voldoen aan die vereistes van Regulasie 11 van hierdie Hoofstuk.

(c) Hierdie dokument, graaninskepingstabiliteitsgegewens en gepaardgaande planne moet opgestel word in die amptelike taal of tale van die land van uitreiking. Indien die tale nòg Engels nòg Frans insluit, moet die teks 'n vertaling in een van hierdie tale insluit.

(d) 'n Afskrif van hierdie dokument, graaninskepingstabiliteitsgegewens en gepaardgaande planne moet aan boord geplaas word sodat indien dit van die gesagvoerder vereis word, hy dit vir inspeksie kan voorlê aan die Kontrakterende Regering van die land waarin die inskepingshawe geleë is.

(e) 'n Skip sonder so 'n magtigingsdokument mag nie graan inskeep nie totdat die gesagvoerder namens die Administrasie tot tevredenheid van die Administrasie of Kontrakterende Regering van die land waarin die inskepingshawe geleë is, demonstreer dat die skip in sy beplande gelaaide toestand sal voldoen aan die vereistes vn hierdie Regulasies.

REGULASIE 11

Graaninskepingsgegewens

Hierdie inligting moet voldoende wees om die gesagvoerder in staat te stel om in alle redelike inskepingstoestande die slagsymomente weens graanskuiwing vas te stel, bereken ooreenkomstig Deel B van hierdie Hoofstuk. Dit moet die volgende insluit:

(a) Gegewens wat deur die Administrasie of deur 'n Kontrakterende Regering namens die Administrasie goedgekeur moet word:

REGULATION 8

Combination arrangements

Lower holds and 'tween-deck spaces in way thereof may be loaded as one compartment provided that, in calculating transverse heeling moments, proper account is taken of the flow of grain into the lower spaces.

REGULATION 9

Application of Parts B and C

An Administration or a Contracting Government on behalf on an Administration may authorize departure from the assumptions contained in Parts B and C of this Chapter in those cases where it considers this to be justified having regard to the provisions for loading or the structural arrangements, provided the stability criteria in paragraph (b) of Regulation 4 of this Chapter are met. Where such authorization is granted under this Regulation, particulars shall be included in the document of authorization or grain loading data.

REGULATION 10

Authorization

(a) A document of authorization shall be issued for every ship loaded in accordance with the Regulations of this Chapter either by the Administration or an organization recognized by it or by a Contracting Government on behalf of the Administration. It shall be accepted as evidence that the ship is capable of complying with the requirements of these Regulations.

(b) The document shall accompany and refer to the grain loading stability booklet provided to enable the master to meet the requirements of paragraph (c) of Regulation 4 of this Chapter. This booklet shall meet the requirements of Regulation 11 of this Chapter.

(c) Such a document, grain loading stability data and associated plans may be drawn up in the official language or languages of the issuing country. If the language used is neither English nor French, the text shall include a translation into one of these languages.

(d) A copy of such a document, grain loading stability data and associated plans shall be placed on board in order that the master, if so required, shall produce them for the inspection of the Contracting Government of the country of the port of loading.

(e) A ship without such a document of authorization shall not load grain until the master demonstrates to the satisfaction of the Administration or the Contracting Government of the port of loading on behalf of the Administration that the ship in its proposed loaded condition will comply with the requirements of these Regulations.

REGULATION 11

Grain loading information

This information shall be sufficient to allow the master to determine in all reasonable loading conditions the heeling moments due to grain shift calculated in accordance with Part B of this Chapter. It shall include the following:

(a) Information which shall be approved by the Administration or by a Contracting Government on behalf of the Administration:

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(i) Kurwes of tabelle van die graanslagsymomente vir elke afdeling, gevul of gedeeltelik gevul of 'n kombinasie daarvan, insluitende die uitwerkings van tydelike installasies;

(ii) tabelle met die maksimum toelaatbare slagsymomente of ander gegewens wat voldoende is om die gesagvoerder in staat te stel om voldoening aan die vereistes van paragraaf (c) van Regulasie 4 van hierdie Hoofstuk te demonstreer;

(iii) besonderhede van die afmetingsvereistes van enige tydelike installasies, en waar toepaslik, die nodige voorwaardes ten einde te voldoen aan die vereistes van Seksie I (E) van Deel C van hierdie Hoofstuk;

(iv) tipiese gelaaide dienstoestande by vertrek en aankoms en as dit nodig is, die ergste tussentydse dienstoestande;

(v) 'n uitgewerkte voorbeeld ter voorligting van die gesagvoerder;

(vi) inskepingsinstruksies in die vorm van aantekeninge wat die vereistes van hierdie Hoofstuk opsom.

(b) Gegewens wat aanneemlik moet wees vir die Administrasie of vir 'n Kontrakterende Regering namens die Administrasie:

(i) Die skip se besonderhede;

(ii) ligteskip-verplasing en die vertikale afstand vanaf die kruispunt van die grondlyn en die midskeepse seksie tot by die swaartepunt (KS);

(iii) tabel van vrye oppervlak-korreksies;

(iv) kapasiteite en swaartepunte.

REGULASIE 12

Ekwivalente

Waar 'n ekwivalent gebruik word wat die Administrasie ingevolge Regulasie 5 van Hoofstuk I van hierdie Konvensie aanvaar het, moet die besonderhede in die magtigingsdokument of graaninskepingsdata ingesluit word.

REGULASIE 13

Vrystellings vir sekere vaarte

Die Administrasie of 'n Kontrakterende Regering namens die Administrasie kan, indien hy meen dat die beskutte aard en toestande van die reis sodanig is dat dit die toepassing van enige van die vereistes van Regulasies 3 tot 12 van hierdie Hoofstuk onredelik of onnodig maak, indiwiduele skepe of klasse skepe vrystel van daardie besondere vereistes.

DEEL B—BEREKENING VAN VERONDERSTELDE SLAGSYMOMENTE

SEKSIE I—BESKRYWING VAN DIE VERONDERSTELDE LEEGTES EN METODE VIR DIE BEREKENING VAN INTAKTE STABILITEIT.

SEKSIE II—VERONDERSTELDE VOLUMETRIESE SLAGSYMOMENT VAN 'N GEVULDE AFDELING.

SEKSIE III—VERONDERSTELDE VOLUMETRIESE SLAGSYMOMENT VAN VULSKAGTE EN KOKERS.

SEKSIE IV—VERONDERSTELDE VOLUMETRIESE SLAGSYMOMENT VAN GEDEELTELIK GEVULDE AFDELINGS.

SEKSIE V—ALTERNATIEWE INSKEPINGSMAATREËLS VIR BESTAANDE SKEPE.

(i) Curves or tables of grain heeling moments for every compartment, filled or partly filled, or combination thereof, including the effects of temporary fittings;

(ii) tables of maximum permissible heeling moments or other information sufficient to allow the master to demonstrate compliance with the requirements of paragraph (c) of Regulation 4 of this Chapter;

(iii) details of the scantlings of any temporary fittings and where applicable the provisions necessary to meet the requirements of Section I(E) of Part C of this Chapter;

(iv) typical loaded service departure and arrival conditions and where necessary, intermediate worst service conditions;

(v) a worked example for the guidance of the master;

(vi) loading instructions in the form of notes summarizing the requirements of this Chapter.

(b) Information which shall be acceptable to the Administration or to a Contracting Government on behalf of the Administration:

(i) Ship's particulars;

(ii) lightship displacement and the vertical distance from the intersection of the moulded base line and midship section to the centre of gravity (KG);

(iii) table of free surface corrections;

(iv) capacities and centres of gravity.

REGULATION 12

Equivalents

Where an equivalent accepted by the Administration in accordance with Regulation 5 of Chapter I of this Convention is applied, particulars shall be included in the document of authorization or grain loading data.

REGULATION 13

Exemptions for certain voyages

The Administration, or a Contracting Government on behalf of the Administration may, if it considers that the sheltered nature and conditions of the voyage are such as to render the application of any of the requirements of Regulations 3 to 12 of this Chapter unreasonable or unnecessary, exempt from those particular requirements individual ships or classes of ships.

PART B—CALCULATION OF ASSUMED HEELING MOMENTS

SECTION I — DESCRIPTION OF THE ASSUMED VOIDS AND METHOD OF CALCULATING INTACT STABILITY.

SECTION II — ASSUMED VOLUMETRIC HEELING MOMENT OF A FILLED COMPARTMENT.

SECTION III — ASSUMED VOLUMETRIC HEELING MOMENT OF FEEDERS AND TRUNKS.

SECTION IV — ASSUMED VOLUMETRIC HEELING MOMENT OF PARTLY FILLED COMPARTMENTS.

SECTION V — ALTERNATIVE LOADING ARRANGEMENTS FOR EXISTING SHIPS.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

SEKSIE I—BESKRYWING VAN DIE VERONDERSTELDE LEEGTES EN METODE VIR DIE BEREKENING VAN INTAKTE STABILITEIT.

(A) ALGEMEEN

(a) Vir berekeningsdoeleides van die teengestelde slagsymoment weens skuiwing van die vragoppervlak in skepe wat massagraan vervoer, word die volgende veronderstel:

(i) In "gevulde afdelings" wat ooreenkomstig Regulasie 3 van hierdie Hoofstuk getrim is, bestaan daar 'n leegte onder alle grensoppervlaktes met 'n helling na die horisontale van minder as 30 grade, en die leegte is parallel met die grensoppervlakte, met 'n gemiddelde diepte bereken volgens die formule:

$$Vd = Vd_1 + 0{,}75\,(d - 600)\ \text{mm}$$

Waar:

Vd = gemiddelde leegtediepte in mm;
Vd_1 = standaardleegtediepte van Tabel I hieronder;
d = werklike draagbalkdiepte in mm.

In geen geval moet daar veronderstel word dat die Vd minder as 100 mm is nie.

TABEL I

Afstand vanaf ent of kant van luik tot by grens van afdeling	*Standaardleegtediepte (Vd_1)*
Meter	*mm*
0,5	570
1,0	530
1,5	500
2,0	480
2,5	450
3,0	440
3,5	430
4,0	430
4,5	430
5,0	430
5,5	450
6,0	470
6,5	490
7,0	520
7,5	550
8,0	590

Opmerkings oor Tabel I:

Vir langer afstande as 8,0 meter moet die standaardleegtediepte (Vd_1) lineêr geëkstrapoleer word teen 'n toename van 80 mm vir elke toename van 1,0 meter in die afstand. Waar daar 'n diepteverskil is tussen die luikkantdraagbalk of sy verlenging en die luikbalk, moet die grootste diepte gebruik word behalwe dat:

(1) Wanneer die luikkantdraagbalk of sy verlenging vlakker as die luikbalk is, die leegtes langs die luikgat bereken kan word deur van die kleinste diepte gebruik te maak; en

(2) wanneer die luikbalk vlakker is as die luikkantdraagbalk of sy verlenging, kan die leegtes vóór en agter die luikgat aan die binneboordkant van die verlenging van die luikkantdraagbalk bereken word deur van die kleinste diepte gebruik te maak;

(3) waar daar 'n verhoogde dek weg van 'n luikgat af is, moet die gemiddelde leegtediepte gemeet vanaf die onderkant van die verhoogde dek bereken word deur gebruik te maak van die standaardleegtediepte tesame met 'n draagbalkdiepte van die luikbalk plus die hoogte van die verhoogde dek.

(ii) In "gevulde afdelings" wat nie ooreenkomstig Regulasie 3 van hierdie Hoofstuk getrim is nie en waar die grensoppervlakte 'n helling na die horisontale van minder as 30 grade het, het die vragoppervlakte 'n helling van 30 grade na die horisontale na inskeping.

(iii) Binne gevulde luikgate en bykomend by enige oop leegte binne die luikdeksel, is daar 'n leegtediepte van gemiddeld 150 mm gemeet tot onder by die graanoppervlakte vanaf die laagste deel van die luikdeksel of die bokant van die kante van die luikhoof, watter ook al die laagste is.

SECTION I—DESCRIPTION OF THE ASSUMED VOIDS AND METHOD OF CALCULATING INTACT STABILITY

(A) GENERAL

(a) For the purpose of calculating the adverse heeling moment due to a shift of cargo surface in ships carrying bulk grain it shall be assumed that—

(i) in "filled compartments" which have been trimmed in accordance with Regulation 3 of this Chapter a void exists under all boundary surfaces having an inclination to the horizontal less than 30 degrees and that the void is parallel to the boundary surface having an average depth calculated according to the formula:

$$Vd = Vd_1 + 0{,}75(d - 600)\ \text{mm}$$

Where—

Vd = Average void depth in mm;
Vd_1 = Standard void depth from Table I below;
d = Actual girder depth in mm.

In no case shall Vd be assumed to be less than 100 mm.

TABLE I

Distance from hatchend or hatchside to boundary of compartment	*Standard void depth* Vd_1
Metres	*mm*
0,5	570
1,0	530
1,5	500
2,0	480
2,5	450
3,0	440
3,5	430
4,0	430
4,5	430
5,0	430
5,5	450
6,0	470
6,5	490
7,0	520
7,5	550
8,0	590

Notes on Table I:

For distances greater than 8,0 metres the standard void depth Vd_1 shall be linearly extrapolated at 80 mm increase for each 1,0 metre increase in distance. Where there is a difference in depth between the hatchside girder or its continuation and the hatchend beam the greater depth shall be used except that:

(1) When the hatchside girder or its continuation is shallower than the hatchend beam the voids abreast the hatchway may be calculated using the lesser depth; and

(2) when the hatchend beam is shallower than the hatchside girder or its continuation the voids fore and aft of the hatchway inboard of the continuation of the hatchside girder may be calculated using the lesser depth;

(3) where there is a raised deck clear of a hatchway the average void depth measured from the underside of the raised deck shall be calculated using the standard void depth in association with a girder depth of the hatchend beam plus the height of the raised deck.

(ii) In "filled compartments" which are not trimmed in accordance with Regulation 3 of this Chapter and where the boundary surface has an inclination to the horizontal which is less than 30 degrees, the cargo surface has an inclination of 30 degrees to the horizontal after loading;

(iii) within filled hatchways and in addition to any open void within the hatch cover there is a void of average depth of 150 mm measured down to the grain surface from the lowest part of the hatch cover or the top of the hatchside coaming, whichever is the lower.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(b) Die beskrywing van die patroon van die graanoppervlaktegedrag wat in "gedeeltelik gevulde afdelings" veronderstel moet word, word aangetoon in Seksie IV van hierdie Deel.

(c) Ten einde voldoening aan die stabiliteitskriteria in paragraaf (b) van Regulasie 4 van hierdie Hoofstuk (kyk Figuur 1) te demonstreer, moet die skip se stabiliteitsberekeninge normaalweg gegrond word op die veronderstelling dat die swaartepunt van die vrag in 'n "gevulde afdeling" by die volumetriese middelpunt van die hele vragruimte is. In dié gevalle waar die Administrasie outoriseer dat die uitwerking van veronderstelde onderdekse leegtes op die vertikale posisie van die swaartepunt van die vrag in "gevulde afdelings" in berekening gebring word, sal dit nodig wees om vir die teengestelde effek van die vertikale skuiwing van graanoppervlaktes te kompenseer deur soos volg die veronderstelde slagsymoment weens die dwarsskeepse skuiwing van graan te verhoog:

totale slagsymoment = 1,06 × berekende dwarsskeepse slagsymoment.

In alle gevale moet die gewig van die vrag in 'n "gevulde afdeling" die volume van die hele vragruimte wees gedeel deur die stuwingsfaktor.

(b) The description of the pattern of grain surface behaviour to be assumed in "partly filled compartments" is shown in Section IV of this Part.

(c) For the purpose of demonstrating compliance with the stability criteria in paragraph (b) of Regulation 4 of this Chapter (see Figure 1), the ship's stability calculations shall be normally based upon the assumption that the centre of gravity of cargo in a "filled compartment" is at the volumetric centre of the whole cargo space. In those cases where the Administration authorises account to be taken of the effect of assumed underdeck voids on the vertical position of the centre of gravity of the cargo in "filled compartments" it will be necessary to compensate for the adverse effect of the vertical shift of grain surfaces by increasing the assumed heeling moment due to the transverse shift of grain as follows:

total heeling moment = 1,06 × calculated transverse heeling moment.

In all cases the weight of cargo in a "filled compartment" shall be the volume of the whole cargo space divided by the stowage factor.

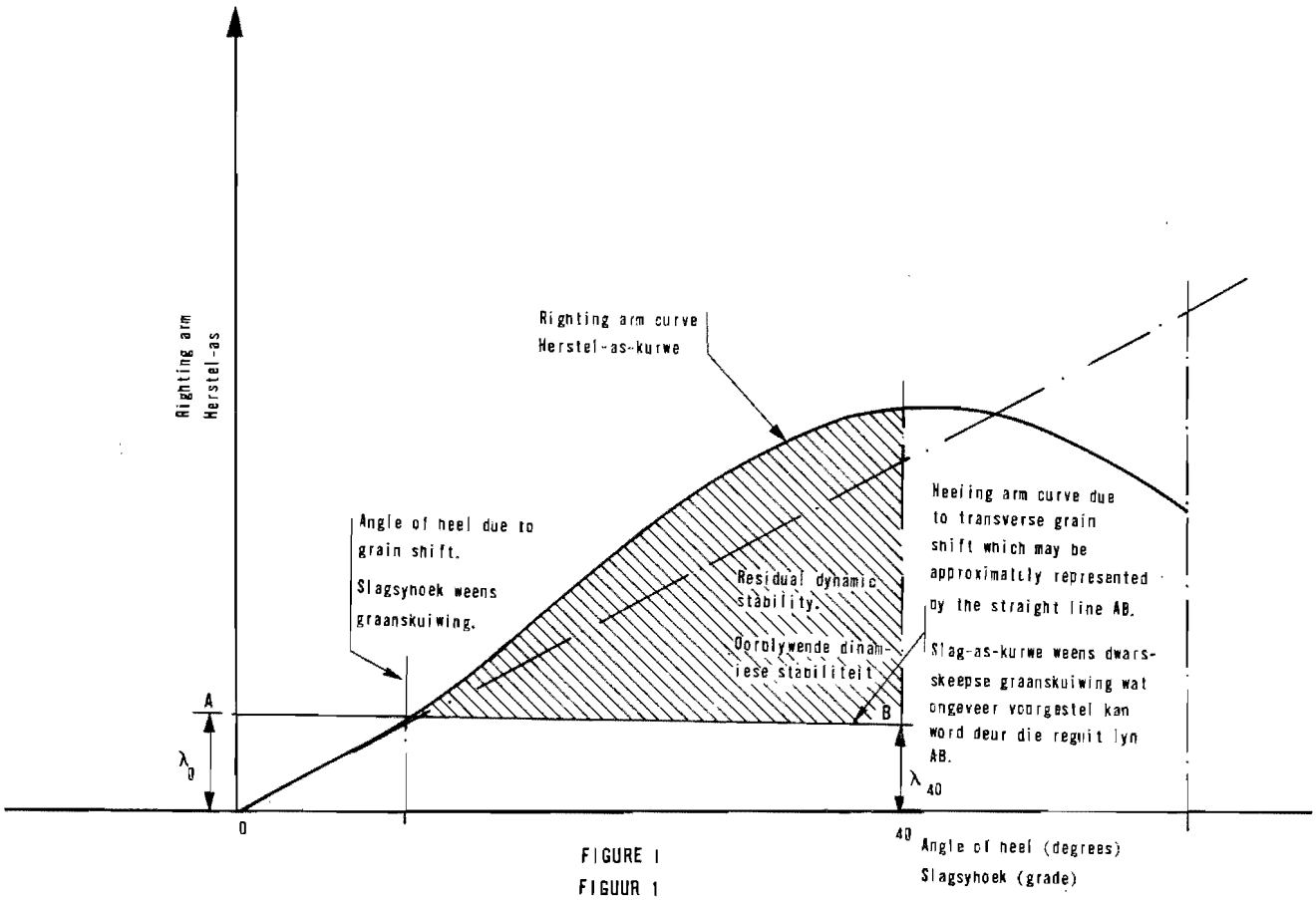

FIGURE 1

FIGUUR 1

Opmerkings oor Figuur 1:

(1) Waar:

$$\lambda = \frac{\text{Veronderstelde volumetriese slagsymoment weens dwarsskeepse skuiwing}}{\text{Stuwingsfaktor} \times \text{Verplasing}};$$

$\lambda_{40} \times 0,8 \times \lambda_0$;

Stuwingsfaktor = Volume per eenheid gewig van graanvrag;

Verplasing = Gewig van skip, brandstof, vars water, voorrade, ens. en vrag.

(2) Die herstel-as-kurwe moet verkry word uit kruiskurwes wat genoegsaam in getal is om die kurwe akkuraat te definieer vir doeleindes van hierdie vereistes en moet kruiskurwes insluit by 12 grade en 40 grade.

Notes on Figure 1:

(1) Where:

$$\lambda_0 = \frac{\text{Assumed Volumetric Heeling Moment due to Transverse Shift}}{\text{Stowage Factor} \times \text{Displacement}};$$

$\lambda_{40} \times 0,8 \times \lambda_0$;

Stowage factor = Volume per unit weight of grain cargo;

Displacement = Weight of ship, fuel, fresh water, stores etc. and cargo.

(2) The righting arm curve shall be derived from cross-curves which are sufficient in number to accurately defined the curve for the purpose of these requirements and shall include cross-curves at 12 degrees and 40 degrees.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(d) In "gedeeltelik gevulde afdelings" moet die teenstellende effek van die vertikale skuiwing van graanoppervlaktes soos volg in berekening gebring word:

totale slagsymoment = 1,12 × berekende teengestelde slagsymoment.

(e) Enige ander ewe doeltreffende metode kan gebruik word om die kompensasie uit te werk wat in paragrawe (c) en (d) hierbo vereis word.

SEKSIE II—VERONDERSTELDE VOLUMETRIESE SLAGSYMOMENT VAN 'N GEVULDE AFDELING

(A) ALGEMEEN

(a) Die patroon van graanoppervlakskuiwing hou verband met 'n dwarsskeepse seksie oor die gedeelte van die betrokke afdeling, en die gevolglike slagsymoment behoort met die lengte vermenigvuldig te word om die totale moment vir daardie gedeelte te verkry.

(b) Die veronderstelde dwarsskeepse slagsymoment weens graanskuiwing is die gevolg van finale veranderings in die vorm en posisie van leegtes nadat die graan van die hoë kant af na die lae kant toe beweeg het.

(c) Die resulterende graanoppervlakte na skuiwing moet veronderstel word as 15 grade teenoor die horisontale vlak.

(d) By berekening van die maksimum leegteoppervlakte wat gevorm kan word teen 'n langsskeepse strukturele raamdeel, moet die uitwerking van alle horisontale oppervlaktes, soos byvoorbeeld flense of oppervlakstawe, buite rekening gelaat word.

(e) Die totale oppervlaktes van die aanvanklike en uiteindelik leegtes moet dieselfde wees.

(f) 'n Nie-deurlopende dwarsskeepse verdeling moet oor sy totale lengte as doeltreffend beskou word.

(B) VERONDERSTELLINGS

In die volgende paragrawe word daar veronderstel dat die totale slagsymoment vir 'n afdeling verkry word deur die resultate van die afsonderlike berekenings van die volgende gedeeltes bymekaar te tel:

(a) *Voor en agter luikgate:*

(i) Indien 'n afdeling twee of meer hoofluikgate het waardeur inskeping kan plaasvind, moet die diepte van die onderdekse leegte vir die gedeelte(s) tussen sulke luikgate bepaal word deur gebruik te maak van die voor- en agterafstand na die middelpunt tussen die luikgate.

(ii) Na die veronderstelde graanskuiwing moet die finale leegtepatroon wees soos in Figuur 2 hieronder:

(d) In "partly filled compartments" the adverse effect of the vertical shift of grain surfaces shall be taken into account as follows:

total heeling moment = 1,12 × calculated transverse heeling moment.

(e) Any other equally effective method may be adopted to make the compensation required in paragraphs (c) and (d) above.

SECTION II—ASSUMED VOLUMETRIC HEELING MOMENT OF A FILLED COMPARTMENT

(A) GENERAL

(a) The pattern of grain surface movement relates to a transverse section across the portion of the compartment being considered and the resultant heeling moment should be multiplied by the length to obtain the total moment for that portion.

(b) The assumed transverse heeling moment due to grain shifting is a consequence of final changes of shape and position of voids after grain has moved from the high side to the low side.

(c) The resulting grain surface after shifting shall be assumed to be at 15 degrees to the horizontal.

(d) In calculating the maximum void area that can be formed against a longitudinal structural member, the effects of any horizontal surfaces, e.g. flanges or face bars, shall be ignored.

(e) The total areas of the initial and final voids shall be equal.

(f) A discontinuous longitudinal division shall be considered effective over its full length.

(B) ASSUMPTIONS

In the following paragraphs it is assumed that the total heeling moment for a compartment is obtained by adding the results of separate considerations of the following portions:

(a) *Before and abaft hatchways:*

(i) If a compartment has two or more main hatchways through which loading may take place the depth of the underdeck void for the portion(s) between such hatchways shall be determined using the fore and aft distance to the midpoint between the hatchways.

(ii) After the assumed shift of grain the final void pattern shall be as shown in Figure 2 below:

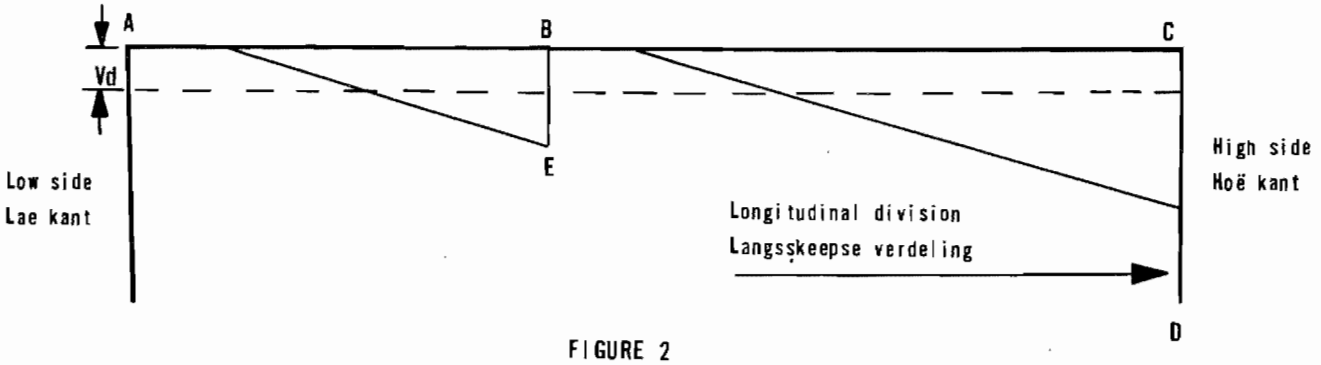

FIGURE 2

FIGUUR 2

Opmerkings oor Figuur 2:

(1) Indien die maksimum leegteoppervlakte wat teen die draagbalk by B gevorm kan word, kleiner is as die aanvanklike leegteoppervlakte onder AB, dit is AB × Vd, moet daar veronderstel word

Notes on Figure 2:

(1) If the maximum void area which can be formed against the girder at B is less than the initial area of the void under AB, i.e.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

dat die oorskotoppervlakte verplaas word na die finale leegte aan die hoë kant.

(2) As die langsskeepse verdeling by C een is wat aangebring is ooreenkomstig subparagraaf (b) (ii) van Regulasie 5 van hierdie Hoofstuk, moet dit strek tot minstens 0,6 meter onder D of E, watter een ook al die grootste diepte gee.

(b) *Binne en dwarsaan luikgate*:

Na die veronderstelde graanskuiwing moet die finale leegtepatroon daar uitsien soos in die volgende Figuur 3 of Figuur 4.

AB × Vd, the excess area shall be assumed to transfer to the fina void on the high side.

(2) If the longitudinal division at C is one which has been provided in accordance with subparagraph (b) (ii) of Regulation 5 of this Chapter it shall extend to at least 0,6 metre below D or E whichever gives the greater depth.

(b) *In and abreast hatchways:*

After the assumed shift of grain the final void pattern shall be as shown in the following Figure 3 or Figure 4.

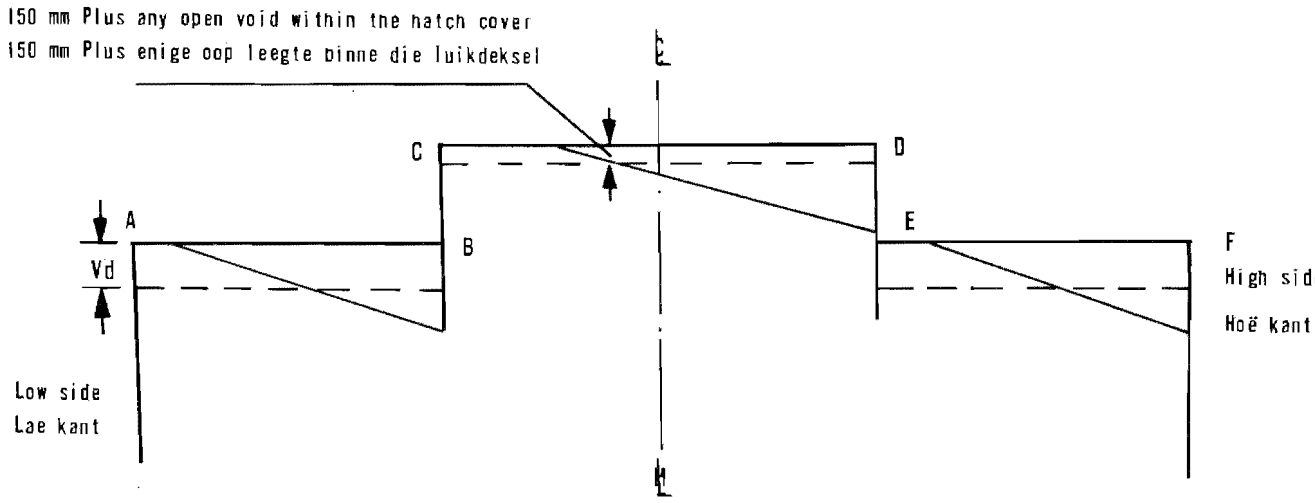

FIGURE 3

FIGUUR 3

Opmerkings oor Figuur 3:

(1) AB.—Enige oppervlakte wat groter is as dié wat teen die draagbalk by B gevorm kan word, moet oorgeplaas word na die finale leegteoppervlakte in die luikgat.

(2) CD.—Enige oppervlakte wat groter is as dié wat teen die raagbalke by E gevorm kan word, moet oorgeplaas word na die nale leegteopperv lakte aan die hoë kant.

Notes on Figure 3:

(1) AB.—Any area in excess of that which can be formed against the girder at B shall transfer to the final void area in the hatchway.

(2) CD.—Any area in excess of that which can be formed agains the girder at E shall transfer to the final void area on the high side

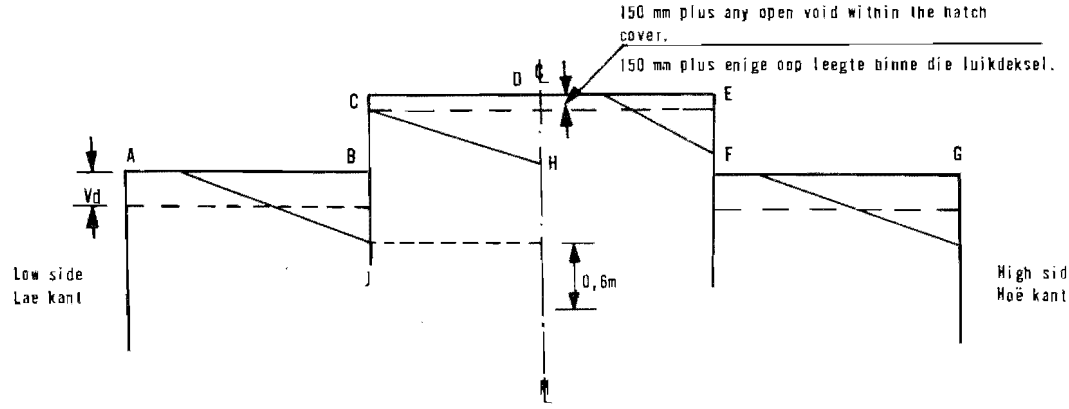

FIGURE 4

FIGUUR 4

Opmerkings oor Figuur 4:

(1) As die middellynverdeling een is wat ingevolge subparagraaf (b) (ii) van Regulasie 5 van hierdie Hoofstuk aangebring is, moet dit strek tot minstens 0,6 meter onder H of J, watter een ook al die grootste diepte gee.

(2) Die oorskotleegteoppervlakte vanaf AB moet oorgeplaas word na die laekant-helfte van die luikgat waarin twee afsonderlike finale leegteoppervlaktes gevorm sal word, naamlik een teen die middellynverdeling en die ander teen die luikhoof se kant en die draagbalk aan die hoë kant.

(3) Indien 'n piering van graan in sakke of 'n massabondel in 'n luikgat gevorm word, moet daar vir die doel om die dwarsskeepse slagsymoment te bereken, veronderstel word dat so 'n inrigting ten minste ekwivalent is aan die middellynverdeling.

Notes on Figure 4:

(1) If the centreline division is one which has been provided in accordance with subparagraph (b) (ii) of Regulation 5 of this Chapter it shall extend to at least 0,6 metre below H or J whichever gives the greater depth.

(2) The excess void area from AB shall transfer to the low side half of the hatchway in which two separate final void areas will be formed viz. one against the centreline division and the other against the hatchside coaming and girder on the high side.

(3) If a bagged saucer or bulk bundle is formed in a hatchway it shall be assumed, for the purpose of calculating transverse heeling moment, that such a device is at least equivalent to the centreline division.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(C) AFDELINGS WAT IN KOMBINASIE GELAAI WORD

Die volgende paragrawe beskryf die patroon van leegtegedrag wat veronderstel moet word wanneer afdelings in kombinasie gelaai word:

(a) *Sonder doeltreffende middellynverdelings:*

(i) Onder die bodek—soos vir die enkeldekinrigting wat in Seksie II (B) van hierdie Deel beskryf is.

(ii) Onder die tweede dek—die leë ruimte wat beskikbaar is vir oordrag vanaf die lae kant, dit is die aanvanklike leë ruimte minus die ruimte teen die draagbalk aan die kant van die luik, moet veronderstel word soos volg oorgeplaas te word:

Een helfte na die bodekluikgat en 'n kwart elk na die hoë kant onder die bodek en tweede dek.

(iii) Onder die derde en laer dekke—die leë ruimtes wat beskikbaar is vir oordrag vanaf die lae kant van elk van hierdie dekke moet veronderstel word in gelyke hoeveelhede oorgeplaas te word na al die leegtes onder die dekke aan die hoë kant en na die leegte in die bodekluikgat.

(b) *Met doeltreffende middellynverdelings wat strek tot binne die bodekluikgat:*

(i) By alle dekvlakke dwarsaan die verdeling moet die leë ruimtes wat beskikbaar is vir oordrag vanaf die lae kant veronderstel word oorgeplaas te word na die leegte onder die laekant-helfte van die bodekluikgat.

(ii) By die dekvlak onmiddellik onder die onderkant van die verdeling moet die leë ruimte wat beskikbaar is vir oordrag vanaf die lae kant, veronderstel word soos volg oorgeplaas te word:

Een helfte na die leegte onder die laekant-helfte van die bodekluikgat, en die res in gelyke hoeveelhede na die leegtes onder die dekke aan die hoë kant.

(iii) By laer dekvlakke as dié wat in subparagrawe (i) en (ii) van hierdie paragraaf beskryf is, moet die leë ruimte wat beskikbaar is vir oordrag vanaf die lae kant van elk van daardie dekke veronderstel word in gelyke hoeveelhede oorgeplaas te word na die leegtes in elk van die twee helftes van die bodekluikgat aan elke kant van die verdeling en na die leegtes onder die dekke aan die hoë kant.

(c) *Met doeltreffende middellynverdelings wat nie strek tot by die bodekluikgat nie:*

Aangesien geen horisontale oorplasing van leegtes veronderstel kan word plaas te vind op dieselfde dekvlak as die verdeling nie, moet die leë ruimte wat beskikbaar is vir oordrag vanaf die lae kant op hierdie vlak veronderstel word om bo die verdeling oorgeplaas te word na leegtes aan die hoë kante ooreenkomstig die beginsels van paragrawe (a) en (b) hierbo.

SEKSIE III—VERONDERSTELDE VOLUMETRIESE SLAGSYMOMENT VAN VULSKAGTE EN -KOKERS

(A) GESKIK GEPLAASTE VLEUELVULSKAGTE (Kyk Figuur 5)

Daar kan aangeneem word dat onderdekse leegtes onder die invloed van skeepsbeweging in aansienlike mate gevul sal word deur die graanvloei vanuit 'n paar langskeepse vulskagte, solank—

(a) die vulskagte oor die volle lengte van die dek strek en die perforerings daarin voldoende gespasieer is;

(C) COMPARTMENTS LOADED IN COMBINATION

The following paragraphs describe the pattern of void behaviour which shall be assumed when compartments are loaded in combination:

(a) *Without effective centreline divisions:*

(i) Under the upper deck—as for the single deck arrangement described in Section II (B) of this Part.

(ii) Under the second deck—the area of void available for transfer from the low side, i.e. original void area less area against the hatchside girder, shall be assumed to transfer as follows:

One-half to the upper deck hatchway and one-quarter each to the high side under the upper and second deck.

(iii) Under the third and lower decks—the void areas available for transfer from the low side of each of these decks shall be assumed to transfer in eqaul quantities to all the voids under the decks on the high side and the void in the upper deck hatchway.

(b) *With effective centreline divisions which extend into the upper deck hatchway:*

(i) At all deck levels abreast the division the void areas available for transfer from the low side shall be assumed to transfer to the void under the low side half of the upper deck hatchway.

(ii) At the deck level immediately below the bottom of the division the void area available for transfer from the low side shall be assumed to transfer as follows:

One-half to the void under the low side half of the upper deck hatchway and the remainder in equal quantities to the voids under the decks on the high side.

(iii) At deck levels lower than those described in subparagraphs (i) and (ii) of this paragraph the void area available for transfer from the low side of each of those decks shall be assumed to transfer in equal quantities to the voids in each of the two halves of the upper deck hatchway on each side of the division and the voids under the decks on the high side.

(c) *With effective centreline divisions which do not extend into the upper deck hatchway:*

Since no horizontal transfer of voids may be assumed to take place at the same deck level as the division the void area available for transfer from the low side at this level shall be assumed to transfer above the division to voids on the high sides in accordance with the principles of paragraphs (a) and (b) above.

SECTION III—ASSUMED VOLUMETRIC HEELING MOMENT OF FEEDERS AND TRUNKS

(A) SUITABLY PLACED WING FEEDERS (See Figure 5)

It may be assumed that under the influence of ship motion underdeck voids will be substantially filled bv the flow of grain from a pair of longitudinal feeders provided that—

(a) the feeders extend for the full length of the deck and that the perforations therein are adequately spaced;

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(b) die volume van elke vulskag gelyk is aan die volume van die onderdekse leegte aan die buiteboordkant van die luikkantdraagbalk en sy verlenging.

(b) the volume of each feeder is equal to the volume of the underdeck void outboard of the hatchside girder and its continuation.

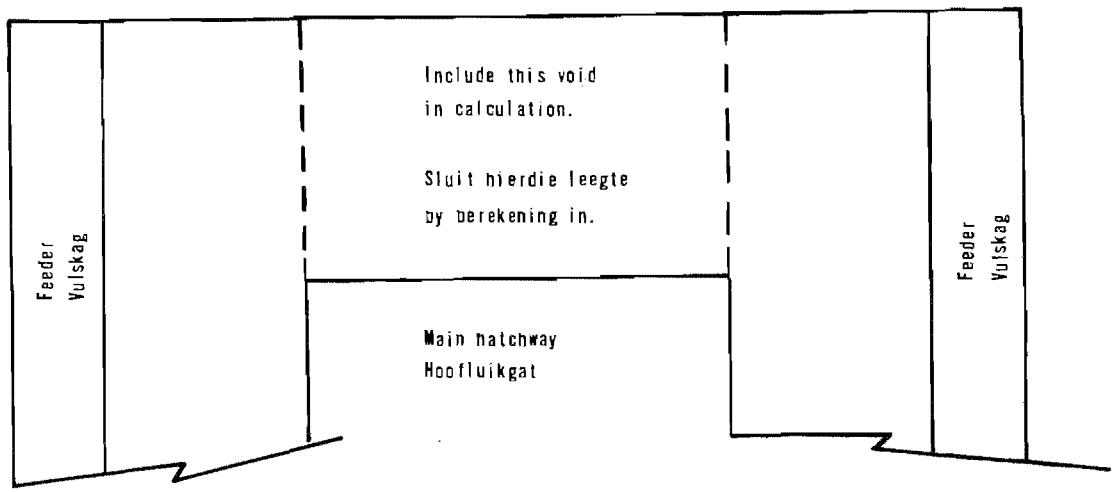

FIGURE 5

FIGUUR 5

(B) KOKERS WAT OOR HOOFLUIKGATE GELEË IS

Na die veronderstelde graanskuiwing moet die finale leegtepatroon lyk soos dié in Figuur 6.

(B) TRUNKS SITUATED OVER MAIN HATCHWAYS

After the assumed shift of grain the final void pattern shall be as shown in Figure 6.

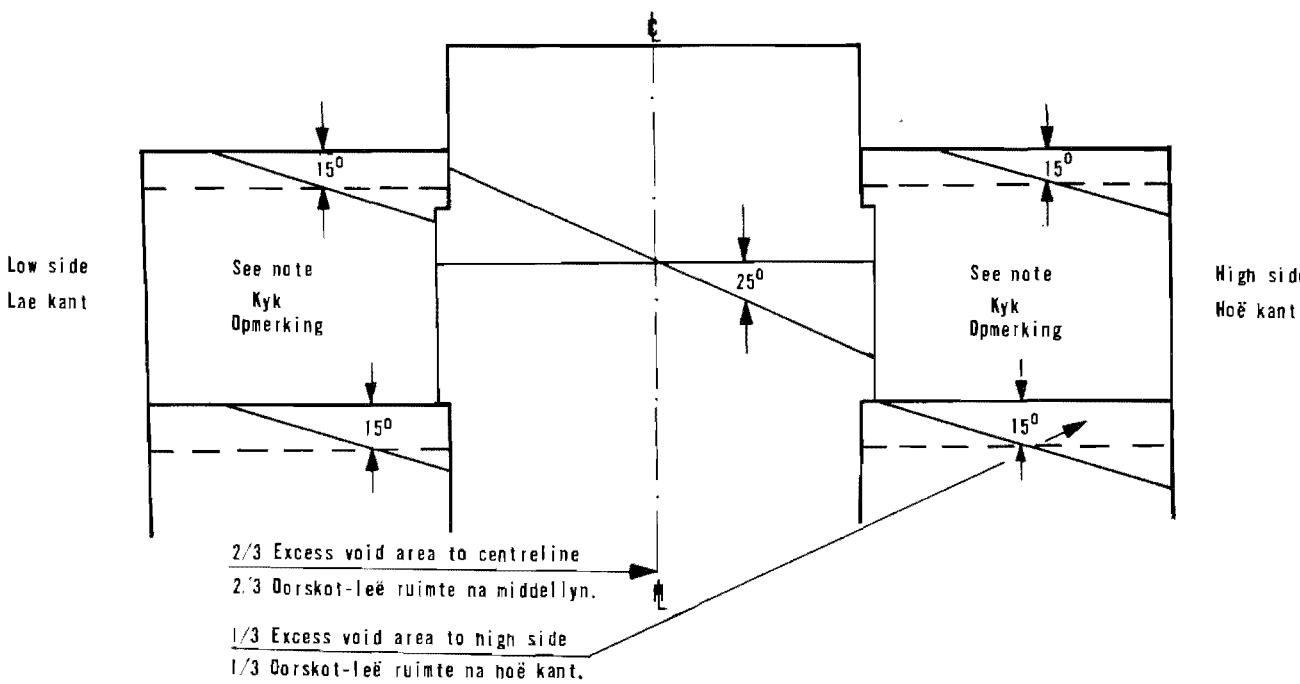

FIGURE 6

FIGUUR 6

Opmerking oor Figuur 6:

Indien die vleuelruimtes by die koker nie behoorlik getrim kan word ooreenkomstig Regulasie 3 van hierdie Hoofstuk nie, moet daar veronderstel word dat 'n skuiwing van 25° plaasvind.

Note on Figure 6:

If the wing spaces in way of the trunk cannot be properly trimmed in accordance with Regulation 3 of this Chapter it shall be assumed that a 25 degree surface shift takes place.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

SEKSIE IV—VERONDERSTELDE VOLUMETRIESE SLAGSYMOMENT VAN GEDEELTELIK GEVULDE AFDELINGS

(A) ALGEMEEN

Wanneer die vrye oppervlakte van die massagraan nie bevestig is ooreenkomstig Regulasie 6 van hierdie Hoofstuk nie, moet daar veronderstel word dat die graanoppervlakte ná skuiwing 25° teenoor die horisontale vlak is.

(B) NIE-DEURLOPENDE LANGSSKEEPSE VERDELINGS

In 'n afdeling waarin die langsskeepse verdelings nie deurlopend tussen die dwarsskeepse grense is nie, moet die lengte waaroor enige sodanige verdelings doeltreffend is as middele om graanoppervlakskuiwings oor die volle wydte te voorkom, geag word te wees die werklike lengte van die betrokke gedeelte van die verdeling minus twee sewendes van die grootste van die dwarsskeepse afstande tussen die verdeling en sy aangrensende verdeling of die skeepsromp.

Hierdie korreksie is nie van toepassing in die onderste afdelings van enige kombinasie-inskeping waarin die boonste afdeling òf 'n "gevulde afdeling" òf 'n "gedeeltelik gevulde afdeling" is nie.

SEKSIE V—ALTERNATIEWE INSKEPINGSMAATREËLS VIR BESTAANDE SKEPE

(A) ALGEMEEN

'n Skip wat ooreenkomstig òf Subseksie (B) òf Subseksie (C) hieronder gelaai word, moet geag word intakte stabiliteitseienskappe te hê van ten minste ekwivalent aan die vereistes van paragraaf (b) van Regulasie 4 van hierdie Hoofstuk. Magtigingsdokumente wat sodanige inskeping toelaat, moet aanvaar word ingevolge die bepalings van paragraaf (e) van Regulasie 10 van hierdie Hoofstuk.

Vir die doeleindes van hierdie deel verwys die uitdrukking "bestaande skip" na 'n skip waarvan die kiel voor die datum van inwerkingtreding van hierdie Hoofstuk gelê is.

(B) STUWING VAN SPESIAAL GESKIKTE SKEPE

(a) Nieteenstaande enigiets in Deel B van hierdie Hoofstuk kan massagraan sonder inagneming van die vereistes wat daarin gespesifiseer word, op die volgende voorwaardes in skepe vervoer word wat gebou is met twee of meer vertikale of skuins graandigte langsskeepse verdelings wat geskik geplaas is om die uitwerking van enige dwarsskeepse graanskuiwing te beperk:

(i) So veel ruime en afdelings as moontlik moet vol wees en vol getrim wees;

(ii) vir enige gespesifiseerde stuwingsreëling moet die skip nie 'n slagsyhoek van meer as 5 grade hê nie op enige stadium van die reis waar—

(1) in ruime of afdelings wat vol getrim is, die graanoppervlakte 2 persent per volume vasgesak het vanaf die aanvanklike oppervlakte en skuif tot 'n hoek van 12 grade teenoor daardie oppervlakte onder alle grense van hierdie ruime en afdelings wat 'n hellingshoek van minder as 30 grade teenoor die horisontale vlak het;

SECTION IV—ASSUMED VOLUMETRIC HEELING MOMENT OF PARTLY FILLED COMPARTMENTS

(A) GENERAL

When the free surface of the bulk grain has not been secured in accordance with Regulation 6 of this Chapter it shall be assumed that the grain surface after shifting shall be at 25 degrees to the horizontal.

(B) DISCONTINUOUS LONGITUDINAL DIVISIONS

In a compartment in which the longitudinal divisions are not continuous between the transverse boundaries, the length over which any such divisions are effective as devices to prevent full width shifts of grain surfaces shall be taken to be the actual length of the portion of the division under consideration less two-sevenths of the greater of the transverse distances between the division and its adjacent division or ship's side.

This correction does not apply in the lower compartments of any combination loading in which the upper compartment is either a "filled compartment" or a "partly filled compartment".

SECTION V — ALTERNATIVE LOADING ARRANGEMENTS FOR EXISTING SHIPS

(A) GENERAL

A ship loaded in accordance with either Subsection (B) or Subsection (C) below shall be considered to have intact stability characteristics at least equivalent to the requirements of paragraph (b) of Regulation 4 of this Chapter. Documents of authorization permitting such loadings shall be accepted under the provisions of paragraph (e) of Regulation 10 of this Chapter.

For the purpose of this Part, the term "Existing Ship" means a ship, the keel of which is laid before the date of coming into force of this Chapter.

(B) STOWAGE OF SPECIALLY SUITABLE SHIPS

(a) Notwithstanding anything contained in Part B of this Chapter, bulk grain may be carried without regard to the requirements specified therein in ships which are constructed with two or more vertical or sloping grain-tight longitudinal divisions suitably disposed to limit the effect of any transverse shift of grain under the following conditions:

(i) As many holds and compartments as possible shall be full and trimmed full;

(ii) for any specified arrangement of stowage the ship will not list to an angle greater than 5 degrees at any stage of the voyage where—

(1) in holds or compartments which have been trimmed full the grain surface settled 2 per cent by volume from the original surface and shifts to an angle of 12 degrees with that surface under all boundaries of these holds and compartments which have an inclination of less than 30 degrees to the horizontal;

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(2) in "gedeeltelik gevulde afdelings of ruime" vrye graanoppervlaktes vassak en skuif soos in subparagraaf (ii) (1) van hierdie paragraaf, of teen sodanige groter hoek as wat die Administrasie of 'n Kontrakterende Regering namens die Administrasie nodig mag ag, en graanoppervlaktes wat ooreenkomstig Regulasie 5 van hierdie Hoofstuk 'n bobelading het, skuif tot 'n hoek van 8 grade teenoor die aanvanklik gelykgemaakte oppervlaktes. Vir die doel van subparagraaf (ii) van hierdie paragraaf moet daar aangeneem word dat graanbeskotte, as daar aangebring is, die dwarsskeepse skuiwing van die graanoppervlakte beperk;

(iii) die gesagvoerder moet voorsien word van 'n graaninskepingsplan wat die stuwingsmaatreëls dek wat gevolg moet word en van 'n stabiliteitsboekie, beide goedgekeur deur die Administrasie, wat die stabiliteitstoestande aangee waarop die berekeninge in subparagraaf (ii) van hierdie paragraaf gebaseer is.

(b) Die Administrasie of 'n Kontrakterende Regering namens die Administrasie moet die voorsorgmaatreëls voorskryf wat getref moet word teen skuiwing in alle ander inskepingstoestande van skepe wat ontwerp is ooreenkomstig paragraaf (B) (a) van hierdie seksie wat aan die vereistes van subparagrawe (ii) en (iii) van daardie paragraaf voldoen.

(C) SKEPE SONDER MAGTIGINGSDOKUMENTE

'n Skip wat nie magtigingsdokumente aan boord het wat ooreenkomstig Regulasies 4 en 10 van hierdie Hoofstuk uitgereik is nie, kan toegelaat word om massagraan in te skeep ingevolge die vereistes van subseksie (B) van hierdie seksie of op voorwaarde dat—

(a) alle "gevulde afdelings" toegerus moet word met middellynverdelings wat strek oor die volle lengte van sulke afdelings en wat ondertoe strek vanaf die onderkant van die dek of luikgate tot 'n afstand onder die dekvlak van minstens een agste van die maksimum wydte van die afdeling of 2,4 meter, watter ook al die diepste is, behalwe dat pierings wat gebou is ooreenkomstig Seksie II van Deel C aanvaar kan word in plaas van 'n middellynverdeling in en onder 'n luikgat;

(b) alle luike na "gevulde afdelings" toegemaak moet wees met die deksels op hulle plek bevestig;

(c) alle vrye graanoppervlaktes in "gedeeltelik gevulde afdelings" ooreenkomstig Seksie II van Deel C gelyk getrim en bevestig moet wees;

(d) die metasentriese hoogte na korreksie vir die vrye oppervlaktes-effek van vloeistowwe in tenks vir die duur van die reis 0,3 meter of dit wat met die volgende formule verkry word, moet wees, watter een ook al die grootste is:

$$GM_R = \frac{LB\,Vd\,(0,25\,B - 0,645\sqrt{Vd\,B}}{SF \times \triangle \times 0,0875}$$

Waar—

L = totale gesamentlike lengte van alle vol afdelings;

B = spantbreedte van vaartuig;

SF = stuwingsfaktor;

Vd = berekende gemiddelde leegtediepte soos per paragraaf (a) (i) van Seksie I (A) van hierdie Deel;

$\triangle$ = verplasing.

(2) in "partly filled compartments or holds" free grain surfaces settle and shift as in subparagraph (ii) (1) of this paragraph or to such larger angle as may be deemed necessary by the Administration, or by a Contracting Government on behalf of the Administration, and grain surfaces if overstowed in accordance with Regulation 5 of this Chapter shift to an angle of 8 degrees with the original levelled surfaces. For the purpose of subparagraph (ii) of this paragraph shifting boards, if fitted, will be considered to limit the transverse shift of the surface of the grain;

(iii) the master is provided with a grain loading plan covering the stowage arrangements to be adopted and a stability booklet, both approved by the Administration, or by a Contracting Government on behalf of the Administration, showing the stability conditions upon which the calculations given in subparagraph (ii) of this paragraph are based.

(b) The Administration, or a Contracting Government on behalf of the Administration, shall prescribe the precautions to be taken against shifting in all other conditions of loading of ships designed in accordance with paragraph (B) (a) of this Section which meet the requirements of subparagraphs (ii) and (iii) of that paragraph.

(C) SHIPS WITHOUT DOCUMENTS OF AUTHORIZATION

A ship not having on board documents of authorization issued in accordance with Regulations 4 and 10 of this Chapter may be permitted to load bulk grain under the requirements of Subsection (B) of this Section or provided that—

(a) all "filled compartments" shall be fitted with centreline divisions extending for the full length of such compartments which extend downwards from the underside of the deck or hatch covers to a distance below the deck line of at least one-eighth of the maximum breadth of the compartment or 2,4 metres, whichever is the greater except that saucers constructed in accordance with Section II of Part C may be accepted in lieu of a centreline division in and beneath a hatchway;

(b) all hatches to "filled compartments" shall be closed and covers secured in place;

(c) all free grain surfaces in "partly filled compartments" shall be trimmed level and secured in accordance with Section II of Part C;

(d) throughout the voyage the metacentric height after correction for the free surface effects of liquids in tanks shall be 0,3 metre or that given by the following formula, whichever is the greater:

$$GM_R = \frac{L\,B\,Vd\,(0,25\,B - 0,645\sqrt{Vd\,B})}{SF \times \triangle \times 0,0875}$$

Where—

L = total combined length of all full compartments;

B = moulded breadth of vessel;

SF = stowage factor;

Vd = calculated average void depth as per paragraph (a) (i) of Section I (A) of this Part; and

$\triangle$ = displacement.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

DEEL C—GRAANINRIGTINGS EN -BEVESTIGING

SEKSIE I—STERKTE VAN GRAANINRIGTINGS:

(A) Algemeen (insluitendende werkspannings).
(B) Aan weerskant gelaaide verdelings.
(C) Aan net een kant gelaaide verdelings.
(D) Pierings.
(E) Gebondelde massagraan.
(F) Bevestiging van luikdeksels van gevulde afdelings.

SEKSIE II—BEVESTIGING VAN GEDEELTELIK GEVULDE AFDELINGS:

(A) Belegstukke en woeltoue.
(B) Bobeladinginrigtings.
(C) Graan in sakke.

SEKSIE I—STERKTE VAN GRAANINRIGTINGS

(A) ALGEMEEN

(a) *Hout.*

Alle hout wat vir graaninrigtings gebruik word moet van 'n goeie, sterk kwaliteit en van 'n tipe en graad wees wat bewys is as geskik vir hierdie doel. Die werklike afgewerkte mates van die hout moet wees ooreenkomstig die afmetings wat verder aan in hierdie deel gespesifiseer word. Laaghout van 'n buite-tipe, saamgebind met waterdigte lym en so aangebring dat die rigting van die grein in die voorvlak loodreg teenoor die regop stutte of binder is, kan gebruik word op voorwaarde dat die sterkte daarvan ekwivalent is aan dié van soliede hout van die geskikte maatplanke.

(b) *Werkspannings.*

Wanneer die afmetings van aan die een kant gelaaide verdelings met behulp van die tabelle in paragrawe (a) en (b) van subseksie (C) van hierdie seksie bereken word, moet die volgende werkspannings gebruik word:

Vir staalverdelings.....2 000 kg per vierkante cm
Vir houtverdelings.....160 kg per vierkante cm

(c) *Ander materiale.*

Ander stowwe as hout of staal kan vir sulke verdelings goedgekeur word solank hulle meganiese eienskappe behoorlik in ag geneem is.

(d) *Regop stutte.*

(i) Tensy middele voorsien word om te voorkom dat stutte uit hulle sokke losraak, moet die inlatingsdiepte aan elke kant van elke regop stut minstens 75 mm wees. Indien 'n regop stut nie aan sy bopunt vas is nie, moet die heel boonste skoor of stuiter so na as doenlik daaraan aangebring word.

(ii) Die inrigtings wat voorsien is vir die invoeging van graanbeskotte deur die verwydering van 'n deel van die dwarsseksie van 'n regop stut moet sodanig wees dat die lokale spanningspeil nie buitensporig hoog is nie.

(iii) Die maksimum buigmoment wat 'n regop stut opgelê word wat 'n verdeling stut wat aan die een kant gelaai is, moet normaalweg bereken word in die veronderstelling dat ente van die regop stutte vry opgelê is. Indien 'n Administrasie egter tevrede is dat enige veronderstelde graad van vastheid in die praktyk bereik sal word, kan daar rekening gehou word met enige vermindering van die maksimum buigmoment wat voortspruit uit enige graad van vastheid wat aan die ente van die regop stut bewerkstellig word.

PART C—GRAIN FITTINGS AND SECURING

SECTION I—STRENGTH OF GRAIN FITTINGS:

(A) General (including working stresses).
(B) Divisions loaded on both sides.
(C) Divisions loaded on one side only.
(D) Saucers.
(E) Bundling of bulk.
(F) Securing hatch covers of filled compartments.

SECTION II—SECURING OF PARTLY FILLED COMPARTMENTS:

(A) Strapping or lashing.
(B) Overstowing arrangements.
(C) Bagged grain.

SECTION I—STRENGHT OF GRAIN FITTINGS

(A) GENERAL

(a) *Timber.*

All timber used for grain fittings shall be of good sound quality and of a type and grade which has been proved to be satisfactory for this purpose. The actual finished dimensions of the timber shall be in accordance with the dimensions hereinafter specified in this Part. Plywood of an exterior type bonded with waterproof glue and fitted so that the direction of the grain in the face plies is perpendicular to the supporting uprights or binder may be used provided that its strength is equivalent to that of solid timber of the appropriate scantlings.

(b) *Working stresses.*

When calculating the dimensions of divisions loaded on one side, using the Tables in paragraphs (a) and (b) of Subsection (C) of this Section, the following working stresses should be adopted:

For divisions of steel..... 2 000 kg per square cm
For divisions of wood..... 160 kg per square cm

(c) *Other materials.*

Materials other than wood or steel may be approved for such divisions provided that proper regard has been paid to their mechanical properties.

(d) *Uprights.*

(i) Unless means are provided to prevent the ends of uprights being dislodged from their sockets, the depth of housing at each end of each upright shall be not less than 75 mm. If an upright is not secured at the top, the uppermost shore or stay shall be fitted as near thereto as is practicable.

(ii) The arrangements provided for inserting shifting boards by removing a part of the cross-section of an upright shall be such that the local level of stresses is not unduly high.

(iii) The maximum bending moment imposed upon an upright supporting a division loaded on one side shall normally be calculated assuming that the ends of the uprights are freely supported. However, if an Administration is satisfied that any degree of fixity assumed will be achieved in practice, account may be taken of any reduction in the maximum bending moment arising from any degree of fixity provided at the ends of the upright.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(e) *Saamgestelde seksie.*

Waar regop stutte, binders of enige ander versterkende raamdele saamgestel word uit twee afsonderlike seksies, een aan elke kant van 'n verdeling en verbind deur middel van deurloopboute met toereikende spasiëring, moet die som van die twee modules van die afsonderlike seksies geag word die effektiewe seksiemodules te wees.

(f) *Gedeeltelike verdeling.*

Waar verdelings nie tot volle diepte van die ruim strek nie, moet sulke verdelings en hulle regop stutte ondersteun of geanker wees sodat hulle net so doeltreffend is as dié wat tot die volle diepte van die ruim strek.

(B) AAN WEERSKANT GELAAIDE AFDELINGS

(a) *Graanbeskotte.*

(i) Graanbeskotte moet minstens 50 mm dik wees en graandig aangebring wees en waar dit nodig is ondersteun word deur regop stutte.

(ii) Die maksimum vrye spanwydte vir graanbeskotte van verskeie diktes moet soos volg wees:

Dikte	*Maksimum vrye spanwydte*
mm	*meter*
50	2,5
60	3,0
70	3,5
80	4,0

Indien groter diktes as hierdie gebruik word, moet die maksimum vrye spanwydte direk eweredig varieer met die toename in dikte.

(iii) Die ente van alle graanbeskotte moet stewig ingelaat wees met 'n minimum van 75 mm draagaftand.

(b) *Ander materiale.*

Verdelings wat gemaak word van ander stowwe as hout moet 'n sterkte hê ekwivalent aan dié van die graanbeskotte wat in paragraaf (a) van hierdie subseksie vereis word.

(c) *Regop stutte.*

(i) Regop staalstutte wat gebruik word vir die ondersteuning van weerskant gelaaide verdelings moet 'n profielmodules hê bereken deur die formule:

$$W = a \times W_1$$

Waar—

W = profielmodulus in cm^3;

a = horisontale spanwydte tussen regop stutte in meter.

Die profielmodulus per meter spanwydte W_1 moenie kleiner wees as aangedui deur die volgende formule nie:

$$W_1 = 14,8\ (h_1 - 1,2)\ cm^3 \text{ per meter;}$$

Waar—

h_1 die vertikale vrye spanwydte in meter is en geneem word as die maksimum waarde van die afstand tussen enige twee aangrensende ankers of tussen die anker of enige ent van die regop stut. Waar hierdie afstand minder as 2,4 meter is moet die betrokke modulus bereken word asof die werklike waarde 2,4 meter is.

(e) *Composite section.*

Where uprights, binders or any other strength members are formed by two separate sections, one fitted on each side of a division and inter-connected by through bolts at adequate spacing, the effective section modules shall be taken as the sum of the two moduli of the separate sections.

(f) *Partial division.*

Where divisions do not extend to the full depth of the hold such divisions and their uprights shall be supported or stayed so as to be as efficient as those which do extend to the full depth of the hold.

(B) DIVISIONS LOADED ON BOTH SIDES

(a) *Shifting boards.*

(i) Shifting boards shall have a thickness of not less than 50 mm and shall be fitted grain-tight and where necessary supported by uprights.

(ii) The maximum unsupported span for shifting boards of various thicknesses shall be as follows:

Thickness	*Maximum unsupported span*
mm	metres
50	2,5
60	3,0
70	3,5
80	4,0

If thicknesses greater than these are provided the maximum unsupported span will vary directly with the increase in thickness.

(iii) The ends of all shifting boards shall be securely house with 75 mm minimum bearing length.

(b) *Other materials.*

Divisions formed by using materials other than wood shall have a strength equivalent to the shifting boards required in paragraph (a) of this subsection.

(c) *Uprights.*

(i) Steel uprights used to support divisions loaded on both sides shall have a section modulus given by:

$$W = a \times W_1$$

Where—

W = section modulus in cm^3;

a = horizontal span between uprights in metres.

The Section modulus per metre span W_1 shall be not less than that given by the formula:

$$W_1 = 14,8\ (h_1 - 1,2)\ cm^3 \text{ per metre;}$$

Where—

h_1 is the vertical unsupported span in metres and shall be taken as the maximum value of the distance between any two adjacent stays or between the stay or either end of the upright. Where this distance is less than 2,4 metres the respective modulus shall be calculated as if the actual value was 2,4 metres.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(ii) Die moduli van regop houtstutte moet bereken word deur die ooreenstemmende moduli vir regop staalstutte met 12,5 te vermenigvuldig. Indien ander stowwe gebruik word, moet hulle moduli minstens dié wees wat vir staal vereis word, eweredig vermeerder ooreenkomstig die verhouding van toelaatbare spannings vir staal tot dié van die stof wat gebruik word. In sulke gevalle moet daar ook aandag geskenk word aan die relatiewe onbuigsaamheid van elke regop stut ten einde te verseker dat die wegbuiging nie oormatig is nie.

(iii) Die horisontale afstand tussen regop stutte moet sodanig wees dat die vrye spanwydtes van die graanbeskotte nie die maksimum spanwydte oorskry wat gespesifiseer word in subparagraaf (ii) van paragraaf (a) van hierdie subseksie nie.

(d) *Skore.*

(i) Houtskore moet, wanneer hulle gebruik word, uit 'n deurlopende stuk bestaan en stewig geheg wees aan elke ent, met 'n helling teen die permanente struktuur van die skip, behalwe dat hulle nie direk teen die rompplate van die skip moet leun nie.

(ii) Onderworpe aan die bepalings van subparagrawe (iii) en (iv) hieronder, moet die minimum grootte van houtskore soos volg wees:

Lengte van skoor in meter	*Reghoekige seksie*	*Deursnee van ronde seksie*
	mm	mm
Nie langer as 3 m nie	150×100	140
Langer as 3 m maar korter as 5 m	150×150	165
Langer as 5 m maar korter as 6 m	150×150	180
Langer as 6 m maar korter as 7 m	200×150	190
Langer as 7 m maar korter as 8 m	200×150	200
Langer as 8 m	200×150	215

Skore van 7 meter en langer moet, min of meer in die middel, van 'n stewige brugstem voorsien word.

(iii) Wanneer die horisontale afstand tussen die regop stutte beduidend van 4 meter verskil, kan die traagheidsmomente van die skore direk eweredig gewysig word.

(iv) Waar die hoek van die skoor teenoor die horisontale vlak 10 grade oorskry, moet die volgende groter skoor as dié wat in subparagraaf (ii) van hierdie paragraaf vereis word, aangebring word op voorwaarde dat die hoek tussen enige skoor en die horisontale vlak in geen geval 45 grade moet oorskry nie.

(e) *Ankers.*

Waar ankers gebruik word om aan weerskant gelaaide verdelings te ondersteun, moet hulle horisontaal of so na as doenlik daaraan aangebring word, deeglik bevestig aan elke kant en bestaande uit staaldraadkabel. Die diktes van die staaldraadkabel moet bepaal word in die veronderstelling dat die verdelings en regop stut wat die anker ondersteun eenvormig gelaai is teen 500 kg/m². Die sodanig veronderstelde werklas op die ankerkabel moet nie een derde van sy breekspanning oorskry nie.

(ii) The moduli of wood uprights shall be determined by multiplying by 12,5 the corresponding moduli for steel uprights. If other materials are used their moduli shall be at least that required for steel increased in proportion to the ratio of the permissible stresses for steel to that of the material used. In such cases attention shall be paid also to the relative rigidity of each upright to ensure that the deflection is not excessive.

(iii) The horizontal distance between uprights shall be such that the unsupported spans of the shifting boards do not exceed the maximum span specified in subparagraph (ii) of paragraph (a) of this Subsection.

(d) *Shores.*

(i) Wood shores, when used, shall be in a single piece and shall be securely fixed at each end and heeled against the permanent structure of the ship except that they shall not bear directly against the side plating of the ship.

(ii) Subject to the provisions of subparagraphs (iii) and (iv) below, the minimum size of wood shores shall be as follows:

Length of shore in metres	*Rectangular section*	*Diameter of circular section*
	mm	mm
Not exceeding 3 m	150×100	140
Over 3 m but not exceeding 5 m	150×150	165
Over 5 m but not exceeding 6 m	150×150	180
Over 6 m but not exceeding 7 m	200×150	190
Over 7 m but not exceeding 8 m	200×150	200
Exceeding 8 m	200×150	215

Shores of 7 metres or more in length shall be securely bridged at approximately mid-length

(iii) When the horizontal distance between the uprights differs significantly from 4 metres, the moments of inertia of the shores may be changed in direct proportion.

(iv) Where the angle of the shore to the horizontal exceeds 10 degrees the next larger shore to that required by subparagraph (ii) of this paragraph shall be fitted provided that in no case shall the angle between any shore and the horizontal exceed 45 degrees.

(e) *Stays.*

Where stays are used to support divisions loaded on both sides, they shall be fitted horizontally or as near thereto as practicable, well secured at each end and formed of steel wire rope. The sizes of the wire rope shall be determined assuming that the divisions and upright which the stay supports are uniformly loaded at 500 kg/m². The working load so assumed in the stay shall not exceed one-third of its breaking load.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(C) AAN NET EEN KANT GELAAIDE VERDELINGS

(a) *Langsskeepse verdelings.*

Die las in kg per meter lengte van die verdeling moet geag word die volgende te wees:

(C) DIVISIONS LOADED ON ONE SIDE ONLY

(a) *Longitudinal divisions.*

The load in kg per metre length of the division shall be taken to be as follows:

TABEL I*

B (m)

h (m)	2	3	4	5	6	7	8	10
1,5	850	900	1 010	1 225	1 500	1 770	2 060	2 645
2,0	1 390	1 505	1 710	1 985	2 295	2 605	2 930	3 590
2,5	1 985	2 160	2 430	2 740	3 090	3 435	3 800	4 535
3,0	2 615	2 845	3 150	3 500	3 885	4 270	4 670	5 480
3,5	3 245	3 525	3 870	4 255	4 680	5 100	5 540	6 425
4,0	3 890	4 210	4 590	5 015	5 475	5 935	6 410	7 370
4,5	4 535	4 890	5 310	5 770	6 270	6 765	7 280	8 315
5,0	5 185	5 570	6 030	6 530	7 065	7 600	8 150	9 260
6,0	6 475	6 935	7 470	8 045	8 655	9 265	9 890	11 150
7,0	7 765	8 300	8 910	9 560	10 245	10 930	11 630	13 040
8,0	9 055	9 665	10 350	11 075	11 835	12 595	13 370	14 930
9,0	10 345	11 030	11 790	12 590	13 425	14 260	15 110	16 820
10,0	11 635	12 395	13 230	14 105	15 015	15 925	16 850	18 710

B=dwarsskeepse mate van die massagraan in meter.
h=hoogte van graan in meter van die onderkant van die verdeling af†.

TABLE I*

B (m)

h (m)	2	3	4	5	6	7	8	10
1,5	850	900	1 010	1 225	1 500	1 770	2 060	2 645
2,0	1 390	1 505	1 710	1 985	2 295	2 605	2 930	3 590
2,5	1 985	2 160	2 430	2 740	3 090	3 435	3 800	4 535
3,0	2 615	2 845	3 150	3 500	3 885	4 270	4 670	5 480
3,5	3 245	3 525	3 870	4 255	4 680	5 100	5 540	6 425
4,0	3 890	4 210	4 590	5 015	5 475	5 935	6 410	7 370
4,5	4 535	4 890	5 310	5 770	6 270	6 765	7 280	8 315
5,0	5 185	5 570	6 030	6 530	7 065	7 600	8 150	9 260
6,0	6 475	6 935	7 470	8 045	8 655	9 265	9 890	11 150
7,0	7 765	8 300	8 910	9 560	10 245	10 930	11 630	13 040
8,0	9 055	9 665	10 350	11 075	11 835	12 595	13 370	14 930
9,0	10 345	11 030	11 790	12 590	13 425	14 260	15 110	16 820
10,0	11 635	12 395	13 230	14 105	15 015	15 925	16 850	18 710

B=transverse extent of the bulk grain in metres.
h=height of grain in metres from the bottom of the division†

Vir ander waardes van h of B moet die laste bepaal word deur lineêre interpolering of ekstrapolering na gelang van die geval.

For other values of h or B the loads shall be determined by linear inter-polation or extrapolation as necessary.

* Om die bogenoemde laste in Britse eenhede (ton/vt) oor te sit moet 1 kg per meter lengte as die ekwivalent van 0,0003 ton per voet lengte beskou word.

† Waar die afstand van 'n verdeling af tot by 'n vulskag of luikgat 1 meter of minder is, moet die hoogte—h—gemeet word tot by die vlak van die graan binne die luikgat of vulskag. In alle gevalle moet die hoogte gemeet word tot by die dek bokant die verdeling.

* For the purpose of converting the above loads into British units (ton/ft) 1 kg per metre length shall be taken to be equivalent to 0,0003 ton per foot length.

† Where the distance from a division to a feeder or hatchway is 1 metre or less, the height—h—shall be taken to the level of the grain within that hatchway or feeder. In all cases the height shall be taken to the overhead deck in way of the division.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(b) *Dwarsskeepse verdelings.*

Die las in kg per meter lengte van die verdeling moet geag word die volgende te wees:

(b) *Transverse divisions.*

The load in kg per metre length of the division shall be taken to be as follows:

TABEL II*

L(m)

h (m)	2	3	4	5	6	7	8	10	12	14	16
1,5	670	690	730	780	835	890	935	1 000	1 040	1 050	1 050
2,0	1 040	1 100	1 170	1 245	1 325	1 400	1 470	1 575	1 640	1 660	1 660
2,5	1 460	1 565	1 675	1 780	1 880	1 980	2 075	2 210	2 285	2 305	2 305
3,0	1 925	2 065	2 205	2 340	2 470	2 590	2 695	2 845	2 925	2 950	2 950
3,5	2 425	2 605	2 770	2 930	3 075	3 205	3 320	3 480	3 570	3 595	3 595
4,0	2 950	3 160	3 355	3 535	3 690	3 830	3 950	4 120	4 210	4 235	4 240
4,5	3 495	3 725	3 940	4 130	4 295	4 440	4 565	4 750	4 850	4 880	4 885
5,0	4 050	4 305	4 535	4 735	4 910	5 060	5 190	5 385	5 490	5 525	5 530
6,0	5 175	5 465	5 720	5 945	6 135	6 300	6 445	6 655	6 775	6 815	6 825
7,0	6 300	6 620	6 905	7 150	7 365	7 445	7 700	7 930	8 055	8 105	8 115
8,0	7 425	7 780	8 090	8 360	8 590	8 685	8 950	9 200	9 340	9 395	9 410
9,0	8 550	8 935	9 275	9 565	9 820	9 930	10 205	10 475	10 620	10 685	10 705
10,0	9 680	10 095	10 460	10 770	11 045	11 270	11 460	11 745	11 905	11 975	11 997

B=langsskeepse mate van die massagraan in meter.
h=hoogte van graan in meter van die onderkant van die verdeling af†.

TABLE II*

L (m)

h (m)	2	3	4	5	6	7	8	10	12	14	16
1,5	670	690	730	780	835	890	935	1 000	1 040	1 050	1 050
2,0	1 040	1 100	1 170	1 245	1 325	1 400	1 470	1 575	1 640	1 660	1 660
2,5	1 460	1 565	1 675	1 780	1 880	1 980	2 075	2 210	2 285	2 305	2 305
3,0	1 925	2 065	2 205	2 340	2 470	2 590	2 695	2 845	2 925	2 950	2 950
3,5	2 425	2 605	2 770	2 930	3 075	3 205	3 320	3 480	3 570	3 595	3 595
4,0	2 950	3 160	3 355	3 535	3 690	3 830	3 950	4 120	4 210	4 235	4 240
4,5	3 495	3 725	3 940	4 130	4 295	4 440	4 565	4 750	4 850	4 880	4 885
5,0	4 050	4 305	4 535	4 735	4 910	5 060	5 190	5 385	5 490	5 525	5 530
6,0	5 175	5 465	5 720	5 945	6 135	6 300	6 445	6 655	6 775	6 815	6 825
7,0	6 300	6 620	6 905	7 150	7 365	7 445	7 700	7 930	8 055	8 105	8 115
8,0	7 425	7 780	8 090	8 360	8 590	8 685	8 950	9 200	9 340	9 395	9 410
9,0	8 550	8 935	9 275	9 565	9 820	9 930	10 205	10 475	10 620	10 685	10 705
10,0	9 680	10 095	10 460	10 770	11 045	11 270	11 460	11 745	11 905	11 975	11 997

L=longitudinal extent of the bulk grain in metres.
h=height of grain in metres from the bottom of the division†

Vir ander waardes van h of L moet die laste bepaal word deur lineêre interpolering of ekstrapolering na gelang van die geval.

(c) *Vertikale verspreiding van die laste.*

Die totale las per lengte-eenheid van die verdelings in Tabelle I en II hierbo kan, as dit nodig geag word, veronderstel word 'n trapesoïdale verspreiding met hoogte te hê. In sulke gevalle is die reaksielaste aan die bo- en onderente van 'n vertikale raamdeel of stut nie gelyk nie. Die reaksielaste aan die bo-ent uitgedruk as persentasies van die totale las wat deur die vertikale raamdeel of stut ondersteun word, moet geag word dié te wees wat in Tabelle III en IV hieronder getoon word.

For other values of h or L the loads shall be determined by linear inter-polation or extrapolation as necessary.

(c) *Vertical distribution of the loads.*

The total load per unit length of divisions shown in the Tables I and II above may, if considered necessary, be assumed to have a trapezoidal distribution with height. In such cases, the reaction loads at the upper and lower ends of a vertical member or upright are not equal. The reaction loads at the upper end expressed as percentages of the total load supported by the vertical member or upright shall be taken to be those shown in Tables III and IV below.

* Om die bogenoemde laste in Britse eenhede (ton/vt) oor te sit moet 1 kg per meter lengte as die ekwivalent van 0,0003 ton per voet lengte beskou word.

† Waar die afstand van 'n verdeling af tot by 'n vulskag of luikgat 1 meter of minder is, moet die hoogte—h—gemeet word tot by die vlak van die graan binne die luikgat of vulskag. In alle gevalle moet die hoogte gemeet word tot by die dek bokant die verdeling.

* For the purpose of converting the above loads into British units (ton/ft) 1 kg per metre length shall be taken to be equivalent to 0,0003 ton per foot length.

† Where the distance from a division to a feeder or hatchway is 1 metre or less, the height—h—shall be taken to the level of the grain within that hatchway or feeder. In all cases the height shall be taken to the overhead deck in way of the division.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

TABEL III

AAN NET EEN KANT GELAAIDE LANGSKEEPSE VERDELING

Draagreaksie aan die bopunt van regop stut as persentasie van las (Tabel I)

B (m)

h (m)	2	3	4	5	6	7	8	10
1,5	43,3	45,1	45,9	46,2	46,2	46,2	46,2	46,2
2	44,5	46,7	46,6	47,8	47,8	47,8	47,8	47,8
2,5	45,4	47,6	48,6	48,8	48,8	48,8	48,8	48,8
3	46,0	48,3	49,2	49,4	49,4	49,4	49,4	49,4
3,5	46,5	48,8	49,7	49,8	49,8	49,8	49,8	49,8
4	47,0	49,1	49,9	50,1	50,1	50,1	50,1	50,1
4,5	47,4	49,4	50,1	50,2	50,2	50,2	50,2	50,2
5	47,7	49,4	50,1	50,2	50,2	50,2	50,2	50,2
6	47,9	49,5	50,1	50,2	50,2	50,2	50,2	50,2
7	47,9	49,5	50,1	50,2	50,2	50,2	50,2	50,2
8	47,9	49,5	50,1	50,2	50,2	50,2	50,2	50,2
9	47,9	49,5	50,1	50,2	50,2	50,2	50,2	50,2
10	47,9	49,5	50,1	50,2	50,2	50,2	50,2	50,2

B=dwarsskeepse mate van die massagraan in meter.

TABLE III

LONGITUDINAL DIVISIONS LOADED ON ONE SIDE ONLY

Bearing Reaction at the Upper End of Upright as Percentage of Load (Table I)

B (m)

h (m)	2	3	4	5	6	7	8	10
1,5	43,3	45,1	45,9	46,2	46,2	46,2	46,2	46,2
2	44,5	46,7	47,6	47,8	47,8	47,8	47,8	47,8
2,5	45,4	47,6	48,6	48,8	48,8	48,8	48,8	48,8
3	46,0	48,3	49,2	49,4	49,4	49,4	49,4	49,4
3,5	46,5	48,8	49,7	49,8	49,8	49,8	49,8	49,8
4	47,0	49,1	49,9	50,1	50,1	50,1	50,1	50,1
4,5	47,4	49,4	50,1	50,2	50,2	50,2	50,2	50,2
5	47,7	49,4	50,1	50,2	50,2	50,2	50,2	50,2
6	47,9	49,5	50,1	50,2	50,2	50,2	50,2	50,2
7	47,9	49,5	50,1	50,2	50,2	50,2	50,2	50,2
8	47,9	49,5	50,1	50,2	50,2	50,2	50,2	50,2
9	47,9	49,5	50,1	50,2	50,2	50,2	50,2	50,2
10	47,9	49,5	50,1	50,2	50,2	50,2	50,2	50,2

B=transverse extent of the bulk grain in metres.

Vir ander waardes van h of B moet die reaksielaste bepaal word deur lineêre interpolering of ekstrapolering na gelang van die geval.

For other values of h or B the reaction loads shall be determined by linear interpolation or extrapolation as necessary.

TABEL IV

AAN NET EEN KANT GELAAIDE DWARSSKEEPSE VERDELINGS

Draagreaksie aan die bopunt van regop stut as persentasie van las (Tabel II)

L (m)

h (m)	2	3	4	5	6	7	8	10	12	14	16
1,5	37,3	38,7	39,7	40,6	41,4	42,1	42,6	43,6	44,3	44,8	45,0
2	39,6	40,6	41,4	42,1	42,7	43,1	43,6	44,3	44,7	45,0	45,2
2,5	41,0	41,8	42,5	43,0	43,5	43,8	44,2	44,7	45,0	45,2	45,2
3	42,1	42,8	43,3	43,8	44,2	44,5	44,7	45,0	45,2	45,3	45,3
3,5	42,9	43,5	43,9	44,3	44,6	44,8	45,0	45,2	45,3	45,3	45,3
4	43,5	44,0	44,4	44,7	44,9	45,0	45,2	45,4	45,4	45,4	45,4
5	43,9	44,3	44,6	44,8	45,0	45,2	45,3	45,5	45,5	45,5	45,5
6	44,2	44,5	44,8	45,0	45,2	45,3	45,4	45,6	45,6	45,6	45,6
7	44,3	44,6	44,9	45,1	45,3	45,4	45,5	45,6	45,6	45,6	45,6
8	44,3	44,6	44,9	45,1	45,3	45,4	45,5	45,6	45,6	45,6	45,6
9	44,3	44,6	44,9	45,1	45,3	45,4	45,5	45,6	45,6	45,6	45,6
10	44,3	44,6	44,9	45,1	45,3	45,4	45,5	45,6	45,6	45,6	45,6

L=langsskeepse mate van die massagraan in meter.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

TABLE IV

TRANSVERSE DIVISIONS LOADED ON ONE SIDE ONLY

Bearing Reaction at the Upper End of Upright as Percentage of Load (Table II)

L (m)

h (m)	2	3	4	5	6	7	8	10	12	14	16
1,5	37,3	38,7	39,7	40,6	41,4	42,1	42,6	43,6	44,3	44,8	45,0
2	39,6	40,6	41,4	42,1	42,7	43,1	43,6	44,3	44,7	45,0	45,2
2,5	41,0	41,8	42,5	43,0	43,5	43,8	44,2	44,7	45,0	45,2	45,2
3	42,1	42,8	43,3	43,8	44,2	44,5	44,7	45,0	45,2	45,3	45,3
3,5	42,9	43,5	43,9	44,3	44,6	44,8	45,0	45,2	45,3	45,3	45,3
4	43,5	44,0	44,4	44,7	44,9	45,0	45,2	45,4	45,4	45,4	45,4
5	43,9	44,3	44,6	44,8	45,0	45,2	45,3	45,5	45,5	45,5	45,5
6	44,2	44,5	44,8	45,0	45,2	45,3	45,4	45,6	45,6	45,6	45,6
7	44,3	44,6	44,9	45,1	45,3	45,4	45,5	45,6	45,6	45,6	45,6
8	44,3	44,6	44,9	45,1	45,3	45,4	45,5	45,6	45,6	45,6	45,6
9	44,3	44,6	44,9	45,1	45,3	45,4	45,5	45,6	45,6	45,6	45,6
10	44,3	44,6	44,9	45,1	45,3	45,4	45,5	45,6	45,6	45,6	45,6

L=longitudinal extent of the bulk grain in metres.

Vir ander waardes van h of L moet die reaksielaste bepaal word deur interpolering of ekstrapolering, na gelang van die geval.

Die sterkte van die eindverbindings van sulke vertikale raamdele of stutte kan bereken word op grondslag van die maksimum las wat waarskynlik op enige van die twee ente gelê sal word. Hierdie laste is soos volg:

Langsskeepse verdelings:

Maksimum las bo..... 50 persent van die toepaslike totale las in Tabel I

Maksimum las onder..... 55 persent van die toepaslike totale las in Tabel I

Dwarsskeepse verdelings:

Maksimum las bo..... 45 persent van die toepaslike totale las in Tabel II

Maksimum las onder..... 60 persent van die toepaslike totale las van Tabel II

Die dikte van horisontale houtborde kan ook bereken word met inagneming van die vertikale verspreiding van die belasting wat in Tabelle III en IV hierbo voorgestel word, en in sulke gevalle

$$t=10a\sqrt{\frac{p\times k}{h\times 213,3}}$$

Waar—

t=plankdikte in mm;

a=horisontale spanwydte van die bord, dit is afstand tussen regop stutte in meter;

h=drukhoogte van graan tot by die onderkant van die verdeling in meter;

p=totale las per lengte-eenheid afgelei uit Tabel I of II in kilogram;

k=faktor afhanklik van vertikale verspreiding van die las.

Wanneer die vertikale verspreiding van die belasting veronderstel word gelykmatig te wees, dit is reghoekig, moet k beskou word as gelyk aan 1.0. Vir 'n trapesoïdale verspreiding

$$k=1,0+0,06\,(50-R)$$

Waar—

R die bopuntbelastingsreaksie is soos verkry uit Tabel III of IV.

For other values of h or L the reaction loads shall be determined by linear interpolation or extrapolation as necessary.

The strength of the end connections of such vertical members or uprights may be calculated on the basis of the maximum load likely to be imposed at either end. These loads are as follows:

Longitudinal Divisions:

Maximum load at the top.... 50 per cent of the appropriate total load from Table I

Maximum load at the bottom 55 per cent of the appropriate total load from Table I

Transverse Divisions:

Maximum load at the top.... 45 per cent of the appropriate total load from Table II

Maximum load at the bottom 60 per cent of the appropriate total load from Table II

The thickness of horizontal wooden boards may also be determined having regard to the vertical distribution of the loading represented by Tables III and IV above and in such cases

$$t=10a\sqrt{\frac{p\times k}{h\times 213,3}}$$

Where—

t =thickness of board in mm;

a =horizontal span of the board i.e. distance between uprights in metres;

h=head of grain to the bottom of the division in metres;

p=total load per unit length derived from Table I or II in k.logrammes;

k=factor dependent upon vertical distribution of the loading.

When the vertical distribution of the loading is assumed to be uniform, i.e. rectangular, k shall be taken as equal to 1.0. For a trapezoidal distribution

$$k=1,0+0,06(50-R)$$

Where—

R is the upper end bearing reaction taken from Table III or IV.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(d) *Ankers of skore.*

Die groottes van ankers en skore moet so bepaal word dat die laste uit Tabelle I en II in die voorafgaande paragrawe (a) en (b) nie een derde van hulle breekspannings oorskry nie.

(D) PIERINGS

Wanneer 'n piering gebruik word om die slagsymomente in 'n "gevulde afdeling" te verminder moet sy diepte, gemeet vanaf die piering se bodem tot by die dekvlak, soos volg wees:

Vir skepe met 'n spantbreedte van 9,1 meter of meer, minstens 1,2 meter.

Vir skepe met 'n spantbreedte van 18,3 meter of meer, minstens 1,8 meter.

Vir skepe met 'n spantbreedte van tussen 9,1 meter en 18,3 meter moet die minimum diepte van die piering deur interpolering bereken word.

Die bokant (mond) van die piering moet gevorm word deur die onderdekse struktuur wat verband hou met die luikgat, dit wil sê luikkantdraagbalke of luikhoofde en luikbalke. Die piering en die luikgat bokant hom moet heeltemal gevul word met graan in sakke of ander geskikte vrag wat op 'n skeidoek of sy ekwivalent gelaai is en styf gestu is teen die aangrensende strukture en die verwyderbare luikbalke as hulle op hulle plek is.

(E) GEBONDELDE MASSAGRAAN

As alternatief vir die vulling van die piering met graan in sakke of ander geskikte vrag kan 'n bondel massagraan gebruik word op die volgende voorwaardes:

(a) Die piering moet uitgevoer word met 'n stof wat die Administrasie se goedkeuring wegdra en 'n treksterkte het van minstens 274 kg per 5 cm-strook en wat met geskikte toebindmiddele aan die bokant toegerus is.

(b) As alternatief vir paragraaf (a) hierbo kan 'n stof wat die Administrasie se goedkeuring wegdra en 'n treksterkte van minstens 137 kg per 5 cm-strook het, gebruik word indien die piering soos volg gebou is:

Dwarsskeeps moet woeltoue wat die Administrasie se goedkeuring wegdra binne die piering wat in die massagraan gevorm word, geplaas word teen intervalle van hoogstens 2,4 meter. Hierdie woeltoue moet sterk genoeg wees om styfgetrek en aan die bokant van die piering vasgemaak te word.

Garnering van minstens 25 mm dik of ander geskikte materiaal van gelyke sterkte en tussen 150 en 300 mm wyd moet voor en agter oor hierdie woeltoue geplaas word om te verhoed dat die voeringmateriaal wat daarop geplaas word in die piering, gesny of geskaaf word.

(c) Die piering moet met massagraan gevul en bo vasgemaak word, behalwe dat wanneer materiaal gebruik word wat ingevolge paragraaf (b) hierbo goedgekeur is, verdere garnering bo-op gelê moet word nadat die materiaal oorgevou is en voordat die piering bevestig word deur die styftrek van die woeltoue.

(d) As meer as een stuk as voering vir die piering gebruik word moet hulle onder aan mekaar geheg word deur hulle te stik of deur dubbele oorvleueling.

(d) *Stays or shores.*

The sizes of stays and shores shall be so determined that the loads derived from Tables I and II in the preceding paragraphs (a) and (b) shall not exceed one-third of the breaking loads.

(D) SAUCERS

When a saucer is used to reduce the heeling moments in a "filled compartment", its depth, measured from the bottom of the saucer to the deck line, shall be as follows:

For ships with a moulded breadth of up to 9,1 metres, not less than 1,2 metres.

For ships with a moulded breadth of 18,3 metres or more, not less than 1,8 metres.

For ships with a moulded breadth between 9,1 metres and 18,3 metres, the minimum depth of the saucer shall be calculated by interpolation.

The top (mouth) of the saucer shall be formed by the underdeck structure in the way of the hatchway, i.e. hatchside girders or coamings and hatchend beams. The saucer and hatchway above shall be completely filled with bagged grain or other suitable cargo laid down on a separation cloth or its equivalent and stowed tightly against adjacent structures and the portable hatchway beams if the latter are in place.

(E) BUNDLING OF BULK

As an alternative to filling the saucer with bagged grain or other suitable cargo a bundle of bulk grain may be used provided that—

(a) the saucer is lined with a material acceptable to the Administration having a tensile strength of not less than 274 kg per 5 cm strip and which is provided with suitable means for securing at the top;

(b) as an alternative to paragraph (a) above a material acceptable to the Administration having a tensile strength of not less than 137 kg per 5 cm strip may be used if the saucer is constructed as follows:

Athwartship lashings acceptable to the Administration shall be placed inside the saucer formed in the bulk grain at intervals of not more than 2,4 metres. These lashings shall be of sufficient length to permit being drawn up tight and secured at the top of the saucer;

dunnage not less than 25 mm in thickness or other suitable material of equal strength and between 150 to 300 mm in width shall be placed fore and aft over these lashings to prevent the cutting or chafing of the material which shall be placed thereon to line the saucer;

(c) the saucer shall be filled with bulk grain and secured at the top except that when using material approved under paragraph (b) above further dunnage shall be laid on top after lapping the material before the saucer is secured by setting up the lashings;

(d) if more than one sheet of material is used to line the saucer they shall be joined at the bottom either by sewing or a double lap;

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(e) Die bokant van die piering moet ooreenstemmend wees met die onderkant van die balke wanneer hulle teruggeplaas is, en geskikte algemene vrag of massagraan kan tussen die balke bo-op die piering geplaas word.

(F) BEVESTIGING VAN LUIKDEKSELS VAN GEVULDE AFDELINGS

As daar geen massagraan of ander vrag bo 'n "gevulde afdeling" is nie, moet die luikdeksels op 'n goedgekeurde wyse bevestig word met inagneming van die gewig en permanente inrigtings wat voorsien is vir die bevestiging van sulke deksels.

Die magtigingsdokumente wat ingevolge Regulasie 10 van hierdie Hoofstuk uitgereik word moet 'n verwysing insluit betreffende die bevestigingswyse wat die Administrasie wat die dokumente uitreik, nodig ag.

SEKSIE II—BEVESTIGING VAN GEDEELTELIK GEVULDE AFDELINGS

(A) BELEGSTUKKE EN WOELTOUE

(a) Wanneer belegstukke en woeltoue gebruik word om die slagsymomente in "gedeeltelik gevulde afdelings" uit te skakel, moet die bevestiging soos volg bewerkstellig word:

(i) Die graan moet getrim en gelykgemaak word totdat dit net 'n effense ronding het en dan bedek word met jute-skeidoeke, bokseile of 'n ekwivalent.

(ii) Die skeidoeke en/of bokseile moet minstens 1,8 meter oorvleuel.

(iii) Twee soliede vloere van onafgewerkte planke van 25 mm by 150 mm by 300 mm moet gelê word met die langsskeepse boonste vloer vasgespyker aan 'n dwarsskeepse ondervloer. As alternatief kan van 50 mm-hout gebruik word wat langsskeeps loop en vasgespyker is op 'n 50 mm onderdraagbalk van minstens 150 mm wyd. Die onderdraagbalke moet oor die volle wydte van die afdeling strek en moet hoogstens 2,4 meter uitmekaar gespasieer wees. Maatreëls wat ander materiaal gebruik en deur die Administrasie as gelykwaardig geag word aan voorgenoemde, kan aanvaar word.

(iv) Staaldraadkabel (19 mm deursnee of ekwivalent), verdubbelde staalbande (50 mm × 1,3 mm met 'n breekspanning van minstens 5 000 kg) of ketting van dieselfde sterkte, wat elk met behulp van 'n spanmoer van 32 mm styfgetrek moet word, kan as woelkabels gebruik word. 'n Wenspanner wat saam met 'n sluitarm gebruik word kan die spanmoer van 32 mm vervang wanneer staalbande gebruik word, solank geskikte wenasse beskikbaar is om soos nodig opgestel te word. Wanneer staalbande gebruik word moet daar minstens drie kartelseëls gebruik word om die punte mee vas te klem. Wanneer draad gebruik word moet daar minstens vier klemme gebruik word om ogies in die woeldrade te vorm.

(v) Voordat die inskeping voltooi is moet die woelkabels by 'n punt ongeveer 450 mm onder die verwagte finale graanoppervlakte stewig aan die raamwerk geheg word deur middel van òf 'n penskakel van 25 mm òf 'n balkklamp van ekwivalente sterkte.

(vi) Die woelkabels moet hoogstens 2,4 meter uitmekaar gespasieer wees en elkeen moet gestut word deur 'n draagbalk wat oor die bokant van die vloer voor en agter vasgespyker is. Hierdie draagbalk moet bestaan uit hout van minstens 25 mm by 150 mm of die ekwivalent daarvan en moet oor die volle breedte van die afdeling strek.

(e) the top of the saucer shall be coincidental with the bottom of the beams when these are in place and suitable general cargo or bulk grain may be placed between the beams on top of the saucer.

(F) SECURING HATCH COVERS OF FILLED COMPARTMENTS

If there is no bulk grain or other cargo above a "filled compartment" the hatch covers shall be secured in an approved manner having regard to the weight and permanent arrangements provided for securing such covers.

The documents of authorization issued under Regulation 10 of this Chapter shall include reference to the manner of securing considered necessary by the Administration issuing such documents.

SECTION II—SECURING OF PARTLY FILLED COMPARTMENTS

(A) STRAPPING OR LASHING

(a) When, in order to eliminate heeling moments in "partly filled compartments", strapping or lashing is utilized, the securing shall be accomplished as follows:

(i) The grain shall be trimmed and levelled to the extent that it is very slightly crowned and covered with burlap separation cloths, tarpaulins or the equivalent.

(ii) The separation cloths and/or tarpaulins shall overlap at least 1,8 metres.

(iii) Two solid floors of rough 25 mm by 150 mm to 300 mm lumber shall be laid with the top floor running longitudinally and nailed to an athwartships bottom floor. Alternatively, one solid floor of 50 mm lumber, running longitudinally and nailed over the top of a 50 mm bottom bearer not less than 150 mm wide, may be used. The bottom bearers shall extend the full breadth of the compartment and shall be spaced not more than 2,4 metres apart. Arrangements utilizing other materials and deemed by an Administration to be equivalent to the foregoing may be accepted.

(iv) Steel wire rope (19 mm diameter or equivalent), doubled steel strapping (50 mm × 1,3 mm and having a breaking load of at least 5 000 kg), or chain of equivalent strength, each of which shall be set tight by means of a 32 mm turnbuckle, may be used for lashings. A winch tightener, used in conjunction with a locking arm, may be substituted for the 32 mm turnbuckle when steel strapping is used, provided suitable wrenches are available for setting up as necessary. When steel strapping is used, not less than three crimp seals shall be used for securing the ends. When wire is used, not less than four clips shall be used for forming eyes in the lashings.

(v) Prior to the completion of loading the lashing shall be positively attached to the framing at a point approximately 450 mm below the anticipated final grain surface by means of either a 25 mm shackle or beam clamp of equivalent strength.

(vi) The lashings shall be spaced not more than 2,4 metres apart and each shall be supported by a bearer nailed over the top of the fore and aft floor. This bearer shall consist of not less than 25 mm by 150 mm lumber or its equivalent and shall extend the full breadth of the compartment.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

(vii) Tydens die vaart moet die belegsels gereeld geïnspekteer en verstewig word waar dit nodig is.

(B) BOBELADINGSINRIGTINGS

Waar graan in sakke of ander geskikte vrag gebruik word om "gedeeltelik gevulde afdelings" te stabiliseer, moet die vrye graanoppervlak bedek word deur 'n skeidoek of sy ekwivalent of deur 'n geskikte platform. Sulke platforms moet bestaan uit draagbalke wat hoogstens 1,2 meter uitmekaar gespasieer is met planke van 25 mm daaroor wat hoogstens 100 mm uitmekaar gespasieer is. Platforms kan van ander materiaal gebou wees, solank hulle deur die Administrasie as gelykwaardig beskou word.

(C) GRAAN IN SAKKE

Graan in sakke moet vervoer word in gawe sakke wat behoorlik gevul en stewig toegemaak moet wees.

HOOFSTUK VII

VERVOER VAN GEVAARLIKE GOEDERE

REGULASIE 1

Toepassing

(a) Tensy uitdruklik anders bepaal, is hierdie Hoofstuk van toepassing op die vervoer van gevaarlike goedere in alle skepe waarop die huidige Regulasies van toepassing is.

(b) Die bepalings van hierdie Hoofstuk is nie van toepassing op skeepsvoorrade en -uitrusting of op bepaalde vragte wat vervoer word in skepe wat spesiaal vir daardie doel gebou of as 'n geheel vir daardie doel omskep is nie, byvoorbeeld tenkskepe.

(c) Die vervoer van gevaarlike goedere anders as ooreenkomstig die bepalings van hierdie Hoofstuk is verbode.

(d) Elke Kontrakterende Regering moet ter aanvulling van die bepalings van hierdie Hoofstuk uitvoerige voorskrifte uitreik of laat uitreik oor die veilige verpakking en stuwing van spesifieke gevaarlike goedere of kategorieë van gevaarlike goedere, en sodanige voorskrifte moet die voorsorgmaatreëls insluit wat in verband met ander vragte nodig is.

REGULASIE 2

Klassifisering

Gevaarlike goedere word soos volg geklassifiseer:

Klas 1—Plofstowwe.
Klas 2—Gasse: saamgepers, vloeibaar gemaak of onder druk opgelos.
Klas 3—Ontvlambare* vloeistowwe.
Klas 4.1—Ontvlambare vaste stowwe.
Klas 4.2—Ontvlambare vaste stowwe, of stowwe wat in staat is tot selfontbranding.
Klas 4.3—Ontvlambare vaste stowwe, of stowwe wat in aanraking met water ontvlambare gasse afgee.
Klas 5.1—Oksideerstowwe.
Klas 5.2—Organiese peroksides.
Klas 6.1 Gifstowwe.
Klas 6.2—Besmetlike stowwe.
Klas 7—Radio-aktiewe stowwe.
Klas 8—Bytstowwe.
Klas 9—Allerlei gevaarlike stowwe, dit wil sê enige ander stof wat uit die ondervinding so gevaarlik geblyk het of mag blyk dat die bepalings van hierdie Hoofstuk daarop van toepassing behoort te wees.

* "Ontvlambaar" beteken dieselfde as "vlambaar".

(vii) During the voyage the strapping shall be regularly inspected and set up where necessary.

(B) OVERSTOWING ARRANGEMENTS

Where bagged grain or other suitable cargo is utilized for the purpose of securing "partly filled compartments", the free grain surface shall be covered with a separation cloth or equivalent or by a suitable platform. Such platforms shall consist of bearers spaced not more than 1,2 metres apart and 25 mm boards laid thereon spaced not more than 100 mm apart. Platforms may be constructed of other materials provided they are deemed by an Administration to be equivalent.

(C) BAGGED GRAIN

Bagged grain shall be carried in sound bags which shall be well filled and securely closed.

CHAPTER VII

CARRIAGE OF DANGEROUS GOODS

REGULATION 1

Application

(a) Unless expressly provided otherwise, this Chapter applies to the carriage of dangerous goods in all ships to which the present Regulations apply.

(b) The provisions of this Chapter do not apply to ship's stores and equipment or to particular cargoes carried in ships specially built or converted as a whole for that purpose, such as tankers.

(c) The carriage of dangerous goods is prohibited except in accordance with the provisions of this Chapter.

(d) To supplement the provisions of this Chapter each Contracting Government shall issue, or cause to be issued, detailed instructions on the safe packing and stowage of specific dangerous goods or categories of dangerous goods which shall include any precautions necessary in their relation to other cargo.

REGULATION 2

Classification

Dangerous goods shall be divided into the following classes:

Class 1—Explosives.
Class 2—Gases: compressed, liquefied or dissolved under pressure.
Class 3—Inflammable* liquids.
Class 4.1—Inflammable solids.
Class 4.2—Inflammable solids, or substances, liable to spontaneous combustion.
Class 4.3—Inflammable solids, or substances, which in contact with water emit inflammable gases.
Class 5.1—Oxidizing substances.
Class 5.2—Organic peroxides.
Class 6.1—Poisonous (toxic) substances.
Class 6.2—Infectious substances.
Class 7—Radioactive substances.
Class 8—Corrosives.
Class 9—Miscellaneous dangerous substances, that is any other substance which experience has shown, or may show, to be of such a dangerous character that the provisions of this Chapter should apply to it.

* "Inflammable" has the same meaning as "flammable".

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 3

Verpakking

(a) Die verpakking van gevaarlike goedere moet—

(i) goed gemaak wees en in goeie toestand verkeer;

(ii) van so 'n aard wees dat enige binne-oppervlakte waarmee die inhoud in aanraking mag kom, nie op gevaarlike wyse aangetas word deur die stof wat vervoer word nie; en

(iii) bestand wees teen die gewone risiko's van hantering en vervoer op see.

(b) Wanneer dit gebruiklik is om materiaal wat absorberend en skokbrekend is aan te wend vir die verpakking van vloeistowwe in houers, moet sodanige materiaal—

(i) in staat wees om die gevare wat deur die vloeistof veroorsaak kan word, tot 'n minimum te beperk;

(ii) so aangebring wees dat dit beweging verhoed en verseker dat die houer steeds omhul bly; en

(iii) indien redelik moontlik, voldoende wees om die vloeistof te absorbeer indien die houer sou breek.

(c) Houers wat gevaarlike vloeistowwe bevat, moet by die vultemperatuur voldoende uitsitruimte hê om voorsiening te maak vir die hoogste temperatuur wat gedurende normale vervoer kan voorkom.

(d) Silinders of houers vir gasse onder druk moet gepas vervaardig, getoets en in stand gehou en op die korrekte manier gevul word.

(e) Leë houers wat voorheen gebruik is vir die vervoer van gevaarlike goedere, moet self behandel word as gevaarlike goedere, tensy hulle skoon- en drooggemaak is of, wanneer die aard van die vorige inhoud dit met veiligheid toelaat, stewig toegemaak is.

REGULASIE 4

Merk en etikette

Elke houer wat gevaarlike goedere bevat, moet gemerk word met die korrekte tegniese benaming (handelsname moet nie gebruik word nie), en moet geïdentifiseer word deur 'n onderskeidende etiket of sjabloonafdruk van die etiket ten einde die gevaarlike aard daarvan duidelik te laat blyk. Elke houer moet aldus geëtiketteer word behalwe houers met chemikalieë wat in beperkte hoeveelhede verpak is, en groot besending wat as 'n eenheid gestu, gehanteer en geïdentifiseer kan word.

REGULASIE 5

Dokumente

(a) In alle dokumente wat betrekking het op die vervoer van gevaarlike goedere op see, moet die korrekte tegniese benaming van die goedere gebruik word wanneer die goedere by naam genoem word (handelsname moet nie gebruik word nie), en moet die korrekte beskrywing gegee word ooreenkomstig die klassifisering uiteengesit in Regulasie 2 van hierdie Hoofstuk.

(b) Die skeepsdokumente wat deur die verskeper opgestel word, moet insluit of vergesel gaan van 'n sertifikaat of verklaring dat die besending wat vir vervoer aangebied word behoorlik verpak, gemerk en geëtiketteer is en in 'n behoorlike toestand verkeer om vervoer te word.

(c) Elke skip wat gevaarlike goedere vervoer, moet beskik oor 'n spesiale lys of manifes waarin 'n uiteensetting ooreenkomstig Regulasie 2 van hierdie Hoofstuk, gegee word van die gevaarlike goedere wat aan

REGULATION 3

Packing

(a) The packing of dangerous goods shall be—

(i) well made and in good condition;

(ii) of such a character that any interior surface with which the contents may come in contact is not dangerously affected by the substance being conveyed; and

(iii) capable of withstanding the ordinary risks of handling and carriage by sea.

(b) Where the use of absorbent or cushioning material is customary in the packing of liquids in receptacles that material shall be—

(i) capable of minimizing the dangers to which the liquid may give rise;

(ii) so disposed as to prevent movement and ensure that the receptacle remains surrounded; and

(iii) where reasonably possible of sufficient quantity to absorb the liquid in the event of breakage of the receptacle.

(c) Receptacles containing dangerous liquids shall have an ullage at the filling temperature sufficient to allow for the highest temperature during the course of normal carriage.

(d) Cylinders or receptacles for gases under pressure shall be adequately constructed, tested, maintained and correctly filled.

(e) Empty receptacles which have been used previously for the carriage of dangerous goods shall themselves be treated as dangerous goods unless they have been cleaned and dried or, when the nature of the former contents permit with safety, have been closed securely.

REGULATION 4

Marking and labelling

Each receptacle containing dangerous goods shall be marked with the correct technical name (trade names shall not be used) and identified with a distinctive label or stencil of the label so as to make clear the dangerous character. Each receptacle shall be so labelled except receptacles containing chemicals packed in limited quantities and large shipments which can be stowed, handled and identified as a unit.

REGULATION 5

Documents

(a) In all documents relating to the carriage of dangerous goods by sea where the goods are named the correct technical name of the goods shall be used (trade names shall not be used) and the correct description given in accordance with the classification set out in Regulation 2 of this Chapter.

(b) The shipping documents prepared by the shipper shall include, or be accompanied by, a certificate or declaration that the shipment offered for carriage is properly packed, marked and labelled and in proper condition for carriage.

(c) Each ship carrying dangerous goods shall have a special list or manifest setting forth, in accordance with Regulation 2 of this Chapter, the dangerous goods

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

boord is en die plek waar hulle gestu is. In plaas van so 'n spesiale lys of manifes kan gebruik gemaak word van 'n uitvoerige stuwingsplan waarin alle gevaarlike goedere volgens klas geïdentifiseer en die plek waar hulle op die skip gestu is, aangegee word.

REGULASIE 6

Stuwingsvereistes

(a) Gevaarlike goedere moet veilig en paslik ooreenkomstig die aard van die goedere gestu word. Goedere wat nie akkordeer nie, moet geskei word.

(b) Plofstowwe (uitgesonderd ammunisie) wat 'n ernstige risiko inhou, moet in 'n magasyn gestu word wat behoorlik gesluit gehou moet word terwyl die skip op see is. Dergelike plofstowwe moet afgesonder gehou word van slagdoppies. Elektriese apparaat en kabels in enige afdeling waarin plofstowwe vervoer word, moet so ontwerp en gebruik word dat die risiko van brand of ontploffing tot 'n minimum beperk word.

(c) Goedere wat gevaarlike dampe afgee, moet in 'n goed geventileerde ruimte of op dek gestu word.

(d) Op skepe wat ontvlambare vloeistowwe of gasse vervoer, moet daar, waar nodig, spesiale voorsorgmaatreëls teen brand of ontploffing getref word.

(e) Stowwe wat in staat is tot selfverhitting of selfontbranding mag nie vervoer word nie, tensy toereikende voorsorgmaatreëls getref is om die uitbreek van brand te voorkom.

REGULASIE 7

Plofstowwe in passasierskepe

(a) Slegs die volgende plofstowwe mag op passasierskepe vervoer word:

(i) Veiligheidspatrone en veiligheidslonte;

(ii) klein hoeveelhede plofstowwe met 'n totale netto gewig van hoogstens 9 kilogram (20 pond);

(iii) noodseine vir gebruik in skepe of in vliegtuie mits die totale gewig van sodanige seine nie 1 016 kilogram (2 240 pond) te bowe gaan nie;

(iv) behalwe op skepe wat passasiers vervoer vir wie daar nie slaapbanke is nie, vuurwerke wat waarskynlik nie met geweld sal ontplof nie.

(b) Nieteenstaande die bepalings van paragraaf (a) van hierdie Regulasie kan addisionele hoeveelhede of tipes plofstowwe vervoer word op passasierskepe wat beskik oor spesiale veiligheidsmaatreëls wat deur die Administrasie goedgekeur is.

HOOFSTUK VIII

KERNSKEPE

REGULASIE 1

Toepassing

Hierdie Hoofstuk is van toepassing op alle kernskepe, uitgesonderd oorlogskepe.

REGULASIE 2

Toepassing van ander hoofstukke

Die regulasies in die ander hoofstukke van die huidige Konvensie is van toepassing op kernskepe behalwe vir sover hulle by hierdie Hoofstuk gewysig word.

REGULASIE 3

Vrystellings

'n Kernskip mag in geen omstandighede van die nakoming van enige regulasies van hierdie Konvensie vrygestel word nie.

on board and the location thereof. A detailed stowage plan which identifies by class and sets out the location of all dangerous goods on board may be used in place of such special list or manifest.

REGULATION 6

Stowage requirements

(a) Dangerous goods shall be stowed safely and appropriately according to the nature of the goods. Incompatible goods shall be segregated from one another.

(b) Explosives (except ammunition) which present a serious risk shall be stowed in a magazine which shall be kept securely closed while at sea. Such explosives shall be segregated from detonators. Electrical apparatus and cables in any compartment in which explosives are carried shall be designed and used so as to minimize the risk of fire or explosion.

(c) Goods which give off dangerous vapours shall be stowed in a well ventilated space or on deck.

(d) In ships carrying inflammable liquids or gases special precautions shall be taken where necessary against fire or explosion.

(e) Substances which are liable to spontaneous heating or combustion shall not be carried unless adequate precautions have been taken to prevent the outbreak of fire.

REGULATION 7

Explosives in passenger ships

(a) In passenger ships the following explosives only may be carried:

(i) Safety cartridges and safety fuses;

(ii) small quantities of explosives not exceeding 9 kilogrammes (20 pounds) total net weight;

(iii) distress signals for use in ships or aircraft, if the total weight of such signals does not exceed 1 016 kilogrammes (2 240 pounds);

(iv) except in ships carrying unberthed passengers, fireworks which are unlikely to explode violently.

(b) Notwithstanding the provisions of paragraph (a) of this Regulation additional quantities or types of explosives may be carried in passenger ships in which there are special safety measures approved by the Administration.

CHAPTER VIII

NUCLEAR SHIPS

REGULATION 1

Application

This Chapter applies to all nuclear ships except ships of war.

REGULATION 2

Application of other Chapters

The Regulations contained in the other Chapters of the present Convention apply to nuclear ships except as modified by this Chapter.

REGULATION 3

Exemptions

A nuclear ship shall not, in any circumstances, be exempted from compliance with any Regulations of this Convention.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

REGULASIE 4

Goedkeuring van reaktor-installasie

Die ontwerp, bou, en standaarde van inspeksie en montering van die reaktor-installasie is onderworpe aan die goedkeuring en tevredenheid van die Administrasie en moet rekening hou met die perke wat deur die aanwesigheid van uitstraling aan ondersoeke gestel word.

REGULASIE 5

Geskiktheid van reaktor-installasie vir diens aan boord van die skip

Die reaktor-installasie moet ontwerp wees met inagneming van die spesiale dienstoestande aan boord van die skip sowel in normale as in buitengewone navigasie-omstandighede.

REGULASIE 6

Veiligheidsmaatreëls teen uitstraling

Die Administrasie moet maatreëls tref om te verseker dat daar nie op see of in 'n hawe onredelike uitstraling of ander kerngevare vir die bemanning, die passasiers of die publiek of vir die waterweë, voedsel of waterbronne voorkom nie.

REGULASIE 7

Veiligheidsaanslag

(a) 'n Veiligheidsaanslag moet opgestel word met die oog op beoordeling van die kernkraginstallasie en die veiligheid van die skip ten einde te verseker dat daar nie op see of in 'n hawe onredelike uitstraling of ander gevare vir die bemanning, die passasiers of die publiek of vir die waterweë, vloedsel of waterbronne voorkom nie. As die Administrasie daarmee tevrede is, moet hy sodanige Veiligheidsaanslag goedkeur en dié moet altyd bygehou word.

(b) Die Veiligheidsaanslag moet betyds genoeg aan die kontrakterende Regerings van die lande wat 'n kernskip voornemens is om te besoek, beskikbaar gestel word dat hulle die veiligheid van die skip kan bepaal.

REGULASIE 8

Bedieningshandboek

'n Uitvoerige bedieningshandboek moet opgestel word vir die inligting en leiding van die bedieningspersoneel in hul pligte in verband met alle sake wat op die bediening van die kernkraginstallasie betrekking het en vir die veiligheid belangrik is. As die Administrasie daarmee tevrede is, moet hy sodanige bedieningshandboek goedkeur en 'n afskrif daarvan moet aan boord van die skip gehou word. Die bedieningshandboek moet altyd bygehou word.

REGULASIE 9

Ondersoeke

Ondersoeke van kernskepe sluit in die toepaslike vereistes van Regulasie 7 van Hoofstuk I, of van Regulasies 8, 9 en 10 van Hoofstuk I, behalwe vir sover die ondersoeke deur die aanwesigheid van uitstraling beperk word. Daarbenewens moet die ondersoeke

REGULATION 4

Approval of reactor installation

The design, construction and standards of inspection and assembly of the reactor installation shall be subject to the approval and satisfaction of the Administration and shall take account of the limitations which will be imposed on surveys by the presence of radiation.

REGULATION 5

Suitability of reactor installation for service on board ship

The reactor installation shall be designed having regard to the special conditions of service on board ship both in normal and exceptional circumstances of navigation.

REGULATION 6

Radiation safety

The Administration shall take measures to ensure that there are no unreasonable radiation or other nuclear hazards, at sea or in port, to the crew, passengers or public, or to the waterways or food or water resources.

REGULATION 7

Safety assessment

(a) A Safety Assessment shall be prepared to permit evaluation of the nuclear power plant and safety of the ship to ensure that there are no unreasonable radiation or other hazards, at sea or in port, to the crew, passengers or public, or to the waterways or food or water resources. The Administration, when satisfied, shall approve such Safety Assessment which shall always be kept up-to-date.

(b) The Safety Assessment shall be made available sufficiently in advance to the Contracting Governments of the countries which a nuclear ship intends to visit so that they may evaluate the safety of the ship.

REGULATION 8

Operating manual

A fully detailed Operating Manual shall be prepared for the information and guidance of the operating personnel in their duties on all matters relating to the operation of the nuclear power plant and having an important bearing on safety. The Administration, when satisfied, shall approve such Operating Manual and a copy shall be kept on board the ship. The Operating Manual shall always be kept up-to-date.

REGULATION 9

Surveys

Survey of nuclear ships shall include the applicable requirements of Regulation 7 of Chapter I, or of Regulations 8, 9 and 10 of Chapter I, except in so far as surveys are limited by the presence of radiation. In addition, the surveys shall include any special require-

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

enige spesiale vereistes van die Veiligheidsaanslag insluit. Sulke ondersoeke moet in alle gevalle, nieteenstaande die bepalings van Regulasies 8 en 10 van Hoofstuk I, minstens een keer per jaar uitgevoer word.

REGULASIE 10

Sertifikate

(a) Die bepalings van paragraaf (a) van Regulasie 12 van Hoofstuk I en van Regulasie 14 van Hoofstuk I is nie op kernskepe van toepassing nie.

(b) 'n Sertifikaat wat 'n Kernpassasierskip-veiligheidsertifikaat genoem word, moet na inspeksie en ondersoek uitgereik word aan 'n kernpassasierskip wat aan die vereistes van Hoofstukke II-1, II-2, III, IV en VIII, en aan enige ander verbandhebbende vereistes van die huidige Regulasies voldoen.

(c) 'n Sertifikaat wat 'n Kernvragskip-veiligheidsertifikaat genoem word, moet na inspeksie en ondersoek uitgereik word aan 'n kernvragskip wat by 'n ondersoek uiteengesit in Regulasie 10 van Hoofstuk I aan die vereistes vir vragskepe en ook aan die vereistes van Hoofstukke II-1, II-2, III, IV en VIII en aan enige ander verbandhebbende vereistes van die huidige Regulasies voldoen.

(d) Kernpassasierskip-veiligheidsertifikate en Kernvragskip-veiligheidsertifikate moet verklaar: "Dat die skip, wat 'n kernskip is, voldoen het aan alle vereistes van Hoofstuk VIII van die Konvensie en beantwoord het aan die Veiligheidsaanslag wat vir die skip goedgekeur is."

(e) Kernpassasierskip-veiligheidsertifikate en Kernvragskip-veiligheidsertifikate geld vir 'n tydperk van hoogstens 12 maande.

(f) Kernpassasierskip-veiligheidsertifikate en Kernvragskip-veiligheidsertifikate moet uitgereik word òf deur die Administrasie òf deur 'n persoon of organisasie wat deur die Administrasie behoorlik daartoe gemagtig is. In elke geval aanvaar daardie Administrasie volle verantwoordelikheid vir die sertifikaat.

REGULASIE 11

Spesiale beheer

Benewens die beheer wat by Regulasie 19 van Hoofstuk I ingestel is, is kernskepe voordat hulle die hawens van Kontrakterende Regerings binnegaan en terwyl hulle daarin is, onderworpe aan spesiale beheer wat daarop gemik is om te kontroleer of daar 'n geldige kernskip-veiligheidsertifikaat aan boord is en dat daar op see of in 'n hawe geen onredelike uitstraling of ander gevare vir die bemanning, passasiers of die publiek of vir die waterweë, voedsel of waterbronne voorkom nie.

REGULASIE 12

Ongevalle

In die geval van 'n ongeluk wat waarskynlik gevaar vir die omgewing sal meebring, moet die gesagvoerder van 'n kernskip die Administrasie onmiddellik daarvan in kennis stel. Die gesagvoerder moet ook die bevoegde Regeringsowerheid van die land in wie se waters die skip hom bevind of wie se waters die skip in 'n beskadigde toestand nader, onmiddellik daarvan in kennis stel.

ments of the Safety Assessment. They shall in all cases, notwithstanding the provisions of Regulations 8 and 10 of Chapter I, be carried out not less frequently than once a year.

REGULATION 10

Certificates

(a) The provisions of paragraph (a) of Regulation 12 of Chapter I and of Regulation 14 of Chapter I shall not apply to nuclear ships.

(b) A Certificate, called a Nuclear Passenger Ship Safety Certificate shall be issued after inspection and survey to a nuclear passenger ship which complies with the requirements of Chapters II-1, II-2, III, IV and VIII, and any other relevant requirements of the present Regulations.

(c) A Certificate, called a Nuclear Cargo Ship Safety Certificate shall be issued after inspection and survey to a nuclear cargo ship which satisfies the requirements for cargo ships on survey set out in Regulation 10 of Chapter I, and complies with the requirements of Chapters II-1, II-2, III, IV and VIII and any other relevant requirements of the present Regulations.

(d) Nuclear Passenger Ship Safety Certificates and Nuclear Cargo Ship Safety Certificates shall state: "That the ship, being a nuclear ship, complied with all requirements of Chapter VIII of the Convention and conformed to the Safety Assessment approved for the ship".

(e) Nuclear Passenger Ship Safety Certificates and Nuclear Cargo Ship Safety Certificates shall be valid for a period of not more than 12 months.

(f) Nuclear Passenger Ship Safety Certificates and Nuclear Cargo Ship Safety Certificates shall be issued either by the Administration or by any person or organization duly authorized by it. In every case, that Administration assumes full responsibility for the certificate.

REGULATION 11

Special control

In addition to the control established by Regulation 19 of Chapter I, nuclear ships shall be subject to special control before entering the ports and in the ports of Contracting Governments, directed towards verifying that there is on board a valid Nuclear Ship Safety Certificate and that there are no unreasonable radiation or other hazards at sea or in port, to the crew, passengers or public, or to the waterways or food or water resources.

REGULATION 12

Casualties

In the event of any accident likely to lead to an environmental hazard the master of a nuclear ship shall immediately inform the Administration. The master shall also immediately inform the competent Governmental authority of the country in whose waters the ship may be, or whose waters the ship approaches in a damaged condition.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

BYVOEGSEL

Vorm van Veiligheidsertifikaat vir passasierskepe

PASSASIERSKIPVEILIGHEIDSERTIFIKAAT

(Amptelike Seël)

.....

Land

vir 'n / 'n kort internasionale reis.

Uitgereik ingevolge die bepalings van die

INTERNASIONALE KONVENSIE VIR DIE BEVEILIGING VAN MENSELEWENS OP SEE, 1974

Naam van skip	Onderskeidende nommer of letters	Hawe waar geregistreer	Bruto tonnemaat	Besonderhede, as daar is, van reise wat kragtens Regulasie 27 (c) (vii) van Hoofstuk III goedgekeur is	Datum waarop die kiel gelê is. (lees Opmerking hieronder)
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Die (*Naam*) Regering sertifiseer
Ek, die ondergetekende.....(*Naam*) sertifiseer

I. Dat bogenoemde skip ooreenkomstig die bepalings van die Konvensie hierbo genoem, behoorlik ondersoek is.

II. Dat uit die ondersoek geblyk het dat die skip aan die vereistes van die Regulasies wat 'n aanhangsel van genoemde Konvensie uitmaak, voldoen het wat betref—

(1) die bouwerk, hoof- en hulpketels en ander drukhouers en masjinerie;

(2) die inrigting van en die besonderhede met betrekking tot die waterdigte indeling;

(3) die volgende indelingslaslyne:

Indelingslaslyne wat toegewys is en midskeeps op die skeepsboord gemerk is (Regulasie 11 van Hoofstuk II-1)	Vryboord	Van toepassing wanneer die ruimtes waarin passasiers vervoer word die volgende alternatiewe ruimtes omvat
C.1.....	.....	.....
C.2.....	.....	.....
C.3.....	.....	.....

III. Dat die reddingstoestelle voorsiening maak vir altesaam hoogstens..... persone, t.w.:

.....reddingsbote (met inbegrip van.....motorreddingsbote) wat ruimte bied vir.....persone, en .....motorreddingsbote wat uitgerus is met 'n radiotelegraafinstallasie en 'n soeklig (inbegrepe by die totale getal reddingsbote hierbo getoon) en..... motorreddingsbote wat slegs met 'n soeklig uitgerus is (wat ook by die totale getal reddingsbote hierbo getoon ingesluit is) waarvoor.....gediplomeerde reddingsbootmanne nodig is;

.....reddingsvlotte waarvoor goedgekeurde tewaterlatingstoestelle vereis word, wat ruimte bied vir..... persone; en

.....reddingsvlotte waarvoor goedgekeurde tewaterlatingstoestelle nie vereis word nie, wat ruimte bied vir..... persone;

.....drywende toestelle wat.....persone kan dra;

.....reddingsboeie;

.....reddingsbaadjies.

IV. Dat die reddingsbote en -vlotte uitgerus is ooreenkomstig die bepalings van die Regulasies.

V. Dat die skip voorsien is van 'n lynwerptoestel en draagbare radio-apparaat vir reddingsvaartuie ooreenkomstig die bepalings van die Regulasies.

APPENDIX

Form of Safety Certificate for Passenger Ships

PASSENGER SHIP SAFETY CERTIFICATE

(Official Seal)

.....

Country

for an / a short international voyage.

Issued under the provisions of the

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

Name of Ship	Distinctive Number or Letters	Port of Registry	Gross Tonnage	Particulars of voyages, if any, sanctioned under Regulation 27 (c) (vii) of Chapter III	Date on which keel was laid (see NOTE below
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

The (*Name*) Government certifies
I, the undersigned.....(*Name*) certify

I. That the above-mentioned ship has been duly surveyed in accordance with the provisions of the Convention referred to above.

II. That the survey showed that the ship complied with the requirements of the Regulations annexed to the said Convention as regards—

(1) the structure, main and auxiliary boilers and other pressure vessels and machinery;

(2) the watertight subdivision arrangements and details;

(3) the following subdivision load lines:

Subdivision load lines assigned and marked on the ship's side at amidships (Regulation 11 of Chapter II–1)	Freeboard	To apply when the spaces in which passengers are carried include the following alternative spaces
C.1.....	.....	.....
C.2.....	.....	.....
C.3.....	.....	.....

III. That the life-saving appliances provide for a total number of.....persons and no more, viz.:

.....lifeboats (including.....motor lifeboats) capable of accommodating.....persons, and.....motor lifeboats fitted with radiotelegraph installation and searchlight (included in the total lifeboats shown above) and.....motor lifeboats fitted with searchlight only (also included in the total lifeboats shown above), requiring.....certificated lifeboatmen;

.....liferafts, for which approved launching devices are required, capable of accommodating..... persons; and

.....liferafts, for which approved launching devices are not required, capable of accommodating.....persons;

.....buoyant apparatus capable of supporting.....persons;

.....lifebuoys;

.....life-jackets.

IV. That the lifeboats and liferafts were equipped in accordance with the provisions of the Regulations.

V. That the ship was provided with a line-throwing appliance and portable radio apparatus for survival craft in accordance with the provisions of the Regulations.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

VI. Dat die skip voldoen het aan die voorskrifte van die Regulasies betreffende radiotelegraafinstallasies, t.w.:

	Voorskrifte van Regulasies	Werklike toestand
Luisterure van operateur.....	.....	.....
Getal operateurs.....	.....	.....
Is daar 'n outo-alarmtoestel?.....	.....	.....
Is daar 'n hoofinstallasie?.....	.....	.....
Is daar 'n reserwe-installasie?.....	.....	.....
Is die hoof- en reserwesender elektries geskei of gekombineer?.....	.....	.....
Is daar 'n rigtingsoeker?.....	.....	.....
Is daar radio-apparaat vir aanpeiling op die radiotelefoonnoodfrekwensie geïnstalleer?.....	.....	.....
Is daar radar geïnstalleer?.....	.....	.....
Getal passasiers waarvoor gesertifiseer.....	.....	.....

VII. Dat die funksionering van die radiotelegraafinstallasies vir motorreddingsbote en/of die draagbare radio-apparaat vir reddingsvaartuie, as daar is, aan die voorskrifte van die Regulasies voldoen het.

VIII. Dat die skip aan die voorskrifte van die Regulasies betreffende brandopsporings- en brandblustoestelle, radar, eggopeilingsapparaat en tolkompas voldoen het en dat dit ooreenkomstig die bepalings van die Regulasies en die geldende Internasionale Botsingsregulasies voorsien is van navigasieligte en -figure, loodsleer, asook van middels om geluid en noodseine te maak.

IX. Dat die skip in alle ander opsigte aan die voorskrifte van die Regulasies voldoen het vir sover hierdie voorskrifte daarop van toepassing is.

Hierdie sertifikaat is uitgereik op gesag van die.....

Regering. Dit bly van krag tot.....

Uitgereik te.....op hede die.....dag van.....19.....

Hier volg die seël of handtekening van die owerheid wat bevoeg is om die sertifikaat uit te reik.

.....
Seël

Indien die sertifikaat onderteken word, moet die volgende paragraaf bygevoeg word:

Die ondergetekende verklaar dat hy behoorlik deur genoemde Regering gemagtig is om hierdie sertifikaat uit te reik.

.....
Handtekening

Opmerking.—Dit is voldoende om die jaar te meld waarin die kiel gelê is of waarin die skip op 'n dergelike stadium van konstruksie was, behalwe in die geval van die jare 1952, 1965 en die jaar waarin die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1974, in werking getree het, in welke gevalle die werklike datum aangegee moet word.

In die geval van 'n skip wat omgeskep is ooreenkomstig Regulasie 1 (b) (i) van Hoofstuk II-1 of Regulasie 1 (a) (i) van Hoofstuk II-2 van die Konvensie, moet die datum waarop die omskeppingswerk begin is, aangegee word.

Vorm van Veiligheidskonstruksiesertifikaat vir Vragskepe

VRAGSKIPVEILIGHEIDSKONSTRUKSIESERTIFIKAAT

(Amptelike Seël)

.....
Land

Uitgereik ingevolge die bepalings van die

INTERNASIONALE KONVENSIE VIR DIE BEVEILIGING VAN MENSELEWENS OP SEE, 1974

Naam van skip	Onderskeidende nommer of letters	Hawe waar geregistreer	Bruto tonnemaat	Datum waarop die kiel gelê is (lees Opmerking hieronder)
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

Die (*Naam*) Regering sertifiseer
Ek, die ondergetekende.....(*Naam*) sertifiseer

VI. That the ship complied with the requirements of the Regulations as regards radiotelegraph installations, viz.:

	Requirements of Regulations	Actual provision
Hours of listening by operator.....	.....	.....
Number of operators.....	.....	.....
Whether auto alarm fitted.....	.....	.....
Whether main installation fitted.....	.....	.....
Whether reserve installation fitted...	.....	.....
Whether main and reserve transmitters electrically separated or combined.....	.....	.....
Whether direction-finder fitted.....	.....	.....
Whether radio equipment for homing on the radiotelephone distress frequency fitted.....	.....	.....
Whether radar fitted.....	.....	.....
Number of passengers for which certificated.....	.....	.....

VII. That the functioning of the radiotelegraph installations for motor lifeboats and/or the portable radio apparatus for survival craft, if provided, complied with the provisions of the Regulations.

VIII. That the ship complied with the requirements of the Regulations as regards fire-detecting and fire-extinguishing appliances, radar, echo-sounding device and gyro-compass and was provided with navigation lights and shapes, pilot ladder, and means of making sound signals, and distress signals in accordance with the provisions of the Regulations and also the International Regulations for Preventing Collisions at Sea in force.

IX. That in all other respects the ship complied with the requirements of the Regulations, so far as these requirements apply thereto.

This certificate is issued under the authority of the.....

Government. It will remain in force until.....

Issued at.....the.....day of.....19.....

Here follows the seal or signature of the authority entitled to issue the certificate.

.....
Seal

If signed, the following paragraph is to be added:

The undersigned declares that he is duly authorized by the said Government to issue this certificate.

.....
Signature

Note.—It will be sufficient to indicate the year in which the keel was laid or when the ship was at a similar stage of construction except for 1952, 1965 and the year of the coming into force of the International Convention for the Safety of Life at Sea, 1974, in which cases the actual date should be given.

In the case of a ship which is converted as provided in Regulation 1 (b) (i) of Chapter II–1 or Regulations 1 (a) (i) of Chapter II–2 of the Convention, the date on which the work of conversion was begun should be given.

Form of Safety Construction Certificate for Cargo Ships

CARGO SHIP SAFETY CONSTRUCTION CERTIFICATE

(Official Seal)

.....
Country

Issued under the provisions of the

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

Name of Ship	Distinctive Number or Letters	Port of Registry	Gross Tonnage	Date on which keel was laid (see NOTE below)
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

The (*Name*) Government certifies
I, the undersigned.....(*Name*) certify

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Dat die bogenoemde skip behoorlik ondersoek is ooreenkomstig die bepalings van Regulasie 10 van Hoofstuk I van die Konvensie hierbo genoem en dat dit uit die ondersoek geblyk het dat die toestand van die romp, die masjinerie en uitrusting, soos in bostaande Regulasie omskryf, in alle opsigte bevredigend was en dat die skip voldoen het aan die toepaslike vereistes van Hoofstuk II-1 en Hoofstuk II-2 (uitgesonderd dié wat betrekking het op brandblustoestelle en brandbeheerplanne).

Hierdie sertifikaat is uitgereik op gesag van die.....

Regering. Dit bly van krag tot.....

Uitgereik te.....op hede die.....dag van.....19.....

Hier volg die seël of handtekening van die owerheid wat bevoeg is om die sertifikaat uit te reik.

.....
Seël

Indien die sertifikaat geteken word, moet die volgende paragraaf bygevoeg word:

Die ondergetekende verklaar dat hy behoorlik deur genoemde Regering gemagtig is om hierdie sertifikaat uit te reik.

.....
Handtekening

Opmerking.—Dit is voldoende om die jaar te meld waarin die kiel gelê is of waarin die skip op 'n dergelike stadium van konstruksie was, behalwe in die geval van die jare 1952, 1965 en die jaar waarin die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1974, in werking getree het, in welke gevalle die werklike datum aangegee moet word.

Vorm van Veiligheidsuitrustingsertifikaat vir Vragskepe

VRAGSKIPVEILIGHEIDSUITRUSTINGSERTIFIKAAT

(Amptelike Seël)

.....
Land

Uitgereik ingevolge die bepalings van die

INTERNASIONALE KONVENSIE VIR DIE BEVEILIGING VAN MENSELEWENS OP SEE, 1974

Naam van skip	Onderskeidende nommer of letters	Hawe waar geregistreer	Bruto tonne-	Datum waarop die kiel gelê is (lees Opmerking hieronder)
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

Die (*Naam*) Regering sertifiseer
Ek, die ondergetekende.....(*Naam*) sertifiseer

I. Dat bogenoemde skip ooreenkomstig die bepalings van die Konvensie hierbo genoem behoorlik geïnspekteer is.

II. Dat uit die inspeksie geblyk het dat die reddingstoestelle voorsiening maak vir altesaam hoogstens.....persone, t.w.:

.....reddingsbote aan die bakboord wat ruimte bied vir .....persone;
.....reddingsbote aan die stuurboord wat ruimte bied vir .....persone;
.....motorreddingsbote (inbegrepe by die totale getal reddingsbote hierbo getoon) met inbegrip van..... motorreddingsbote uitgerus met radiotelegraafinstallasie en soeklig, en.....motorreddingsbote wat slegs met 'n soeklig uitgerus is;
.....reddingsvlotte, waarvoor goedgekeurde tewaterlatingstoestelle vereis word, wat ruimte bied vir..... persone; en
.....reddingsvlotte, waarvoor goedgekeurde tewaterlatingstoestelle nie vereis word nie, wat ruimte bied vir..... persone;
.....reddingsboeie;
.....reddingsbaadjies.

III. Dat die reddingsbote en -vlotte uitgerus is ooreenkomstig die bepalings van die Regulasies wat 'n aanhangsel van die Konvensie uitmaak.

IV. Dat die skip voorsien is van 'n lynwerptoestel en draagbare radio-apparaat vir reddingsvaartuie ooreenkomstig die bepalings van die Regulasies.

V. Dat uit die inspeksie geblyk het dat die skip voldoen aan die voorskrifte van genoemde Konvensie betreffende brandblustoestelle en brandbeheerplanne, eggopeilingsapparaat en tolkompas en dat dit ooreenkomstig die bepalings van die regulasies en die geldende Internasionale Botsingregulasies voorsien is van navigasieligte en -figure, loodsleer asook van middels om geluid en noodseine te maak.

That the above-mentioned ship has been duly surveyed in accordance with the provisions of Regulation 10 of Chapter I of the Convention referred to above, and that the survey showed that the condition of the hull, machinery and equipment, as defined in the above Regulation, was in all respects satisfactory and that the ship complied with the applicable requirements of Chapter II-1 and Chapter II-2 (other than that relating to fire-extinguishing appliances and fire control plans).

This certificate is issued under the authority of the.....

Government. It will remain in force until.....

Issued at.....the.....day of.....19.....

Here follows the seal or signature of the authority entitled to issue the certificate.

.....
Seal

If signed, the following paragraph is to be added:

The undersigned declares that he is duly authorized by the said Government to issue this certificate.

.....
Signature

Note.—It will be sufficient to indicate the year in which the keel was laid or when the ship was at a similar stage of construction except for 1952, 1965 and the year of the coming into force of the International Convention for the Safety of Life at Sea, 1974, in which cases the actual date should be given.

Form of Safety Equipment Certificate for Cargo Ships

CARGO SHIP SAFETY EQUIPMENT CERTIFICATE

(Official Seal)

.....
Country

Issued under the provisions of the

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

Name of Ship	Distinctive Number or Letters	Port of Registry	Gross Tonnage	Date on which keel was laid (see NOTE below)
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

The (*Name*) Government certifies
I, the undersigned.....(*Name*) certify

I. That the above-mentioned ship has been duly inspected in accordance with the provisions of the Convention referred to above.

II. That the inspection showed that the life-saving appliances provided for a total number of.....persons and no more viz.:

.....lifeboats on port side capable of accommodating .....persons;
.....lifeboats on starboard side capable of accommodating .....persons;
.....motor lifeboats (included in the total lifeboats shown above), including.....motor lifeboats fitted with radiotelegraph installation and searchlight, and and.....motor lifeboats fitted with searchlight only;
.....liferafts, for which approved launching devices are required, capable of accommodating.....persons; and
.....liferafts, for which approved launching devices are not required, capable of accommodating.....persons;
.....lifebuoys;
.....life-jackets.

III. That the lifeboats and liferafts were equipped in accordance with the provisions of the Regulations annexed to the Convention.

IV. That the ship was provided with a line-throwing apparatus and portable radio apparatus for survival craft in accordance with the provisions of the Regulations.

V. That the inspection showed that the ship complied with the requirements of the said Convention as regards fire-extinguishing appliances and fire control plans, echo-sounding device and gyrocompass and was provided with navigation lights and shapes, pilot ladder, and means of making sound signals and distress signals, in accordance with the provisions of the Regulations and the International Regulations for Preventing Collisions at Sea in force.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

VI. Dat die skip in alle ander opsigte aan die voorskrifte van die Regulasies voldoen het vir sover hierdie voorskrifte daarop van toepassing is.

Hierdie sertifikaat is uitgereik op gesag van die.....

Regering. Dit bly van krag tot.....

Uitgereik te.....op hede die.....dag van.....19.....

Hier volg die seël of handtekening van die owerheid wat bevoeg is om die sertifikaat uit te reik.

.....

Seël

Indien die sertifikaat geteken word, moet die volgende paragraaf bygevoeg word:

Die ondergetekende verklaar dat hy behoorlik deur genoemde Regering gemagtig is om hierdie sertifikaat uit te reik.

.....

Handtekening

Opmerking.—Dit is voldoende om die jaar te meld waarin die kiel gelê is of waarin die skip op dergelike stadium van konstruksie was, behalwe in die geval van die jare 1952, 1965 en die jaar waarin die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1974, in werking getree het, in welke gevalle die werklike datum aangegee moet word.

Vorm van Veiligheidsradiotelegrafisertifikaat vir Vragskepe

VRAGSKIPVEILIGHEIDSRADIOTELEGRAFIE-SERTIFIKAAT

(Amptelike Seël)

.....

Land

Uitgereik ingevolge die bepalings van die

INTERNASIONALE KONVENSIE VIR DIE BEVEILIGING VAN MENSELEWENS OP SEE, 1974

Naam van skip	Onderskeidende nommer of letters	Hawe waar geregistreer	Bruto tonnemaat	Datum waarop die kiel gelê is (lees Opmerking hieronder)
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

Die (*Naam*) Regering sertifiseer
Ek, die ondergetekende.....(*Naam*) sertifiseer

I. Dat bogenoemde skip vir sover dit radiotelegrafie en radar betref, voldoen aan die bepalings van die Regulasies wat 'n aanhangsel uitmaak van die Konvensie hierbo genoem:

	Voorskrifte van Regulasies	Werklike toestand
Luisterure van operateur.....	.....	.....
Getal operateurs.....	.....	.....
Is daar 'n outo-alarmtoestel?.....	.....	.....
Is daar 'n hoofinstallasie?.....	.....	.....
Is daar 'n reserwe-installasie?.....	.....	.....
Is die hoof- en reserwesender elektries geskei of gekombineer?.....	.....	.....
Is daar radio-apparaat vir aanpeiling op die radiotelefoonnoodfrekwensie geïnstalleer?.....	.....	.....
Is daar radar geïnstalleer?.....	.....	.....
Is daar 'n rigtingsoeker?.....	.....	.....

II. Dat die funksionering van die radiotelegraafinstallasies vir motorreddingsbote en/of draagbare radio-apparaat vir reddingsvaartuie, as daar is, aan die voorskrifte van genoemde Regulasies voldoen.

Hierdie sertifikaat is uitgereik op gesag van die.....
Regering. Dit bly van krag tot.....
Uitgereik te.....op hede die.....dag van.....19.....

Hier volg die seël of handtekening van die owerheid wat bevoeg is om hierdie sertifikaat uit te reik.

.....

Seël

Indien die sertifikaat geteken word, moet die volgende paragraaf bygevoeg word:

Die ondergetekende verklaar dat hy behoorlik deur genoemde Regering gemagtig is om hierdie sertifikaat uit te reik.

.....

Handtekening

VI. That in all other respects the ship complied with the requirements of the Regulations so far as these requirements apply thereto.

This certificate is issued under the authority of the.....

Government. It will remain in force until.....

Issued at.....the.....day of.....19.....

Here follows the seal or signature of the authority entitled to issue the certificate.

.....

Seal

If signed, the following paragraph is to be added:

The undersigned declares that he is duly authorized by the said Government to issue this certificate.

.....

Signature

Note.—It will be sufficient to indicate the year in which the keel was laid or when the ship was at a similar stage of construction except for 1952, 1965 and the year of the coming into force of the International Convention for the Safety of Life at Sea, 1974, in which cases the actual date should be given.

Form of Safety Radiotelegraphy Certificate for Cargo Ships

CARGO SHIP SAFETY RADIOTELEGRAPHY CERTIFICATE

(Official Seal)

.....

Country

Issued under the provisions of the

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

Name of Ship	Distinctive Number or Letters	Port of Registry	Gross Tonnage	Date on which keel was laid (see NOTE below)
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

The (*Name*) Government certifies
I, the undersigned.....(*Name*) certify

I. That the above-mentioned ship complies with the provisions of the Regulations annexed to the Convention referred to above as regards radiotelegraphy and radar:

	Requirements of Regulations	Actual provision
Hours of listening by operator.....	.....	.....
Number of operators.....	.....	.....
Whether auto alarm fitted.....	.....	.....
Whether main installation fitted.....	.....	.....
Whether reserve installation fitted...	.....	.....
Whether main and reserve transmitters electrically separated or combined.....	.....	.....
Whether direction-finder fitted.....	.....	.....
Whether radio equipment for homing on the radiotelephone distress frequency fitted.....	.....	.....
Whether radar fitted.....	.....	.....

II. That the functioning of the radiotelegraphy installation for motor lifeboats and/or the portable radio apparatus for survival craft, if provided, complies with the provisions of the said Regulations.

This certificate is issued under the authority of the.....

Government. It will remain in force until.....

Issued at.....the.....day of.....19.....

Here follows the seal or signature of the authority entitled to issue this certificate:

.....

Seal

If signed, the following paragraph is to be added:

The undersigned declares that he is duly authorized by the said Government to issue this certificate.

.....

Signature

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Opmerking.—Dit is voldoende om die jaar te meld waarin die kiel gelê is of waarin die skip op dergelike stadium van konstruksie was, behalwe in die geval van die jare 1952, 1965 en die jaar waarin die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1974, in werking getree het, in welke gevalle die werklike datum aangegee moet word.

Vorm van Veiligheidsradiotelefoniesertifikaat vir Vragskepe

VRAGSKIPVEILIGHEIDSRADIOTELEFONIE-SERTIFIKAAT

(Amptelike Seël)

.....

Land

Uitgereik ingevolge die bepalings van die

INTERNASIONALE KONVENSIE VIR DIE BEVEILIGING VAN MENSELEWENS OP SEE, 1974

Naam van skip	Onder-skeidende nommer of letters	Hawe waar geregistreer	Bruto tonne-maat	Datum waarop die kiel gelê is (lees Opmerking hieronder)
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

Die (*Naam*) Regering sertifiseer
Ek, die ondergetekende.....(*Naam*) sertifiseer

I. Dat bogenoemde skip vir sover dit radiotelefonie betref voldoen aan die bepalings van die Regulasies wat 'n aanhangsel uitmaak van die Konvensie hierbo genoem:

	Voorskrifte van Regulasies	Werklike toestand
Luisterure.....	.....	.....
Getal operateurs.....	.....	.....

II. Dat die funksionering van die draagbare radio-apparaat vir reddingsvaartuie, as daar is, aan die voorskrifte van genoemde Regulasies voldoen.

Hierdie sertifikaat is uitgereik op gesag van die.....

Regering. Dit bly van krag tot.....

Uitgereik te.....op hede die.....dag van.....19.....

Hier volg die seël of handtekening van die owerheid wat bevoeg is om hierdie sertifikaat uit te reik.

.....

Seël

Indien die sertifikaat geteken word, moet die volgende paragraaf bygevoeg word:

Die ondergetekende verklaar dat hy behoorlik deur genoemde Regering gemagtig is om hierdie sertifikaat uit te reik.

.....

Handtekening

Opmerking.—Dit is voldoende om die jaar te meld waarin die kiel gelê is of waarin die skip op 'n dergelike stadium van konstruksie was, behalwe in die geval van die jare 1952, 1965 en die jaar waarin die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1974, in werking getree het, in welke gevalle die werklike datum aangegee moet word.

Vorm van Vrystellingsertifikaat

VRYSTELLINGSERTIFIKAAT

(Amptelike Seël)

.....

Land

Uitgereik ingevolge die bepalings van die

INTERNASIONALE KONVENSIE VIR DIE BEVEILIGING VAN MENSELEWENS OP SEE, 1974

Naam van skip	Onder-skeidende nommer of letters	Hawe waar geregistreer	Bruto tonnemaat
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

Note.—It will be sufficient to indicate the year in which the keel was laid or when the ship was at a similar stage of construction except for 1952, 1965 and the year of the coming into force of the International Convention for the Safety of Life at Sea, 1974, in which cases the actual date should be given.

Form of Safety Radiotelephony Certificate for Cargo Ships

CARGO SHIP SAFETY RADIOTELEPHONY CERTIFICATE

(Official Seal)

.....

Country

Issued under the provisions of the

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

Name of Ship	Distinctive Number or Letters	Port of Registry	Gross Tonnage	Date on which keel was laid (see Note below)
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

The (*Name*) Government certifies
I, the undersigned.....(*Name*) certify

I. That the above-mentioned ship complies with the provisions of the Regulations annexed to the Convention referred to above as regards Radiotelephony:

	Requirements of Regulations	Actual provision
Hours of listening.....	.....	.....
Number of operators.....	.....	.....

II. That the functioning of the portable radio apparatus for survival craft, if provided, complies with the provisions of the said Regulations.

This certificate is issued under the authority of the.....

Government. It will remain in force until.....

Issued at.....the.....day of.....19.....

Here follows the seal or signature of the authority entitled to issue this certificate.

.....

Seal

If ned, the following paragraph is to be added:

The undersigned declares that he is duly authorized by the said Government to issue this certificate.

.....

Signature

Note.—It will be sufficient to indicate the year in which the keel was laid or when the ship was at a similar stage of construction except for 1952, 1965 and the year of the coming into force of the International Convention for the Safety of Life at Sea, 1974, in which cases the actual date should be given.

Form of Exemption Certificate

EXEMPTION CERTIFICATE

(Official Seal)

.....

Country

Issued under the provisions of the

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

Name of Ship	Distinctive Number or Letters	Port of Registry	Gross Tonnage
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Die (*Naam*) Regering sertifiseer
Ek, die ondergetekende.....(*Naam*) sertifiseer

Dat bogenoemde skip kragtens Regulasie.....van Hoofstuk .....van die Regulasies wat 'n aanhangsel uitmaak van die Konvensie hierbo genoem, vrygestel is van die vereistes van †.....

.....van die Konvensie vir die reise.....

na*.....

.....

.....

Hierdie sertifikaat is uitgereik op gesag van die.....

Regering. Dit bly van krag tot.....

Uitgereik te.....op hede die.....dag van.....19.....

Hier volg die seël of handtekening van die owerheid wat bevoeg is om hierdie sertifikaat uit te reik.

.....
Seël

Indien die sertifikaat geteken word moet die volgende paragraaf bygevoeg word:

Die ondergetekende verklaar dat hy behoorlik deur genoemde Regering gemagtig is om hierdie sertifikaat uit te reik.

.....
Handtekening

* Vul hier in die voorwaardes, as daar is, waarop die vrystellingsertifikaat verleen word.
† Vul hier in verwysings na hoofstukke en regulasies, met vermelding van besondere paragrawe.

Vorm van Veiligheidsertifikaat vir Kernpassasierskepe

KERNPASSASIERSKIP-VEILIGHEIDSERTIFIKAAT

(Amptelike Seël)

.....
Land

Uitgereik ingevolge die bepalings van die

INTERNASIONALE KONVENSIE VIR DIE BEVEILIGING VAN MENSELEWENS OP SEE, 1974

Naam van skip	Onderskeidende nommer of letters	Hawe waar geregistreer	Bruto tonnemaat	Besonderhede, as daar is, van reise wat kragtens Regulasie 27 (c) (vii) van Hoofstuk III goedgekeur is	Datum waarop die kiel gelê is (lees Opmerking hieronder)
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Die (*Naam*) Regering sertifiseer
Ek, die ondergetekende.....(*Naam*) sertifiseer

I. Dat bogenoemde skip ooreenkomstig die bepalings van die Konvensie hierbo genoem, behoorlik ondersoek is.

II. Dat die skip, wat 'n kernskip is, aan al die vereistes van Hoofstuk VIII van die Konvensie voldoen het en in ooreenstemming was met die Veiligheidsaanslag wat vir die skip goedgekeur is.

III. Dat uit die ondersoek geblyk het dat die skip aan die vereistes van die Regulasies wat 'n aanhangsel van genoemde Konvensie uitmaak, voldoen wat betref—

(1) die bouwerk, hoof- en hulpketels, en ander drukhouers en masjinerie;

(2) die inrigting van en die besonderhede met betrekking tot die waterdigte indeling;

(3) die volgende indelingslaslyne:

Indelingslaslyne wat toegewys en midskeeps op die skeepsboord gemerk is (Regulasie 11 van Hoofstuk II-1)	Vryboord	Van toepassing wanneer die ruimtes waarin passasiers vervoer word die volgende alternatiewe ruimtes omvat
C.1.....	.....	.....
C.2.....	.....	.....
C.3.....	.....	.....

The (*Name*) Government certifies
I, the undersigned.....(*Name* certify

That the above-mentioned ship is, under the authority conferred by Regulation..... of Chapter.....of the Regulations annexed to the Convention referred to above, exempted from the

requirements of †.....

of the Convention on the voyages.....

to*.....

.....

.....

This certificate is issued under the authority of the.....

Government. It will remain in force until.....

Issued at.....the.....day of.....19.....

Here follows the seal or signature of the authority entitled to issue this certificate.

.....
Seal

If signed, the following paragraph is to be added:

The undersigned declares that he is duly authorized by the said Government to issue this certificate.

.....
Signature

* Insert here the conditions, if any, on which the exemption certificate is granted.
† Insert here references to Chapters and Regulations, specifying particular paragraphs.

Form of Safety Certificate for Nuclear Passenger Ships

NUCLEAR PASSENGER SHIP SAFETY CERTIFICATE

(Official Seal)

.....
Country

Issued under the provisions of the

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

Name of Ship	Distinctive Number or Letters	Port of Registry	Gross Tonnage	Particulars of voyages, if any, sanctioned under Regulation 27 (c) (vii) of Chapter III	Date on which keel was laid (see NOTE below
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

The (*Name*) Government certifies
I, the undersigned.....(*Name*) certify

I. That the above-mentioned ship has been duly surveyed in accordance with the provisions of the Convention referred to above.

II. That the ship, being a nuclear ship, complied with all requirements of Chapter VIII of the Convention and conformed to the Safety Assessment approved for the ship.

III. That the survey showed that the ship complied with the requirements of the Regulations annexed to the said Convention as regards—

(1) the structure, main and auxiliary boilers and other pressure vessels and machinery;

(2) the watertight subdivision arrangements and details;

(3) the following subdivision loan lines:

Subdivision load lines assigned and marked on the ship's side at amidships (Regulation 11 of Chapter II-1)	Freeboard	To apply when the spaces in which passengers are carried include the following alternative spaces
C.1.....	.....	.....
C.2.....	.....	.....
C.3.....	.....	.....

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

IV. Dat die reddingstoestelle voorsiening maak vir altesaam hoogstens.....persone, t.w:

.....reddingsbote (met inbegrip van.....motorreddingsbote) wat ruimte bied vir.....persone, en.....

.....motorreddingsbote wat uitgerus is met 'n radiotelegraafinstallasie en 'n soeklig (inbegrepe by die totale getal reddingsbote hierbo getoon) en.....

motorreddingsbote wat slegs met 'n soeklig uitgerus is (wat ook by die totale getal reddingsbote hierbo getoon, ingesluit is), waarvoor.....gediplomeerde reddingsbootmanne nodig is;

.....reddingsvlotte waarvoor goedgekeurde tewaterlatingstoestelle vereis word en wat ruimte bied vir..... persone; en

.....reddingsvlotte waarvoor goedgekeurde tewaterlatingstoestelle nie vereis word nie en wat ruimte bied vir..... persone.

.....drywende toestelle wat.....persone kan dra;

.....reddingsboeie;

.....reddingsbaadjies.

V. Dat die reddingsbote en -vlotte uitgerus is ooreenkomstig die bepalings van die Regulasies.

VI. Dat die skip voorsien is van 'n lynwerptoestel en draagbare radio-apparaat vir reddingsvaartuie ooreenkomstig die bepalings van die Regulasies.

VII. Dat die skip voldoen het aan die voorskrifte van die Regulasies betreffende radiotelegraafinstallasies, t.w.:

	Voorskrifte van Regulasies	Werklike toestand
Luisterure van operateur.....	.....	.....
Getal operateurs.....	.....	.....
Is daar 'n outo-alarmtoestel?.....	.....	.....
Is daar 'n hoofinstallasie?.....	.....	.....
Is daar 'n reserwe-installasie?.....	.....	.....
Is die hoof- en reserwesenders elektries geskei of gekombineer?.....	.....	.....
Is daar 'n rigtingsoeker?.....	.....	.....
Is daar radio-apparaat vir aanpeiling op die radiotelefoonnoodfrekwensie geïnstalleer?.....	.....	.....
Is daar radar geïnstalleer.....	.....	.....
Getal passasiers waarvoor gesertifiseer.....	.....	.....

VIII. Dat die funksionering van die radiotelegraafinstallasies vir motorreddingsbote en/of die draagbare radio-apparaat vir reddingsvaartuie, as daar is, aan die voorskrifte van die Regulasies voldoen het.

IX. Dat die skip aan die voorskrifte van die Regulasies betreffende brandopsporings- en brandblustoestelle, radar-eggopeilingsapparaat en tolkompas voldoen het en dat dit ooreenkomstig die bepalings van die Regulasies en die geldende Internasionale Botsingsregulasies voorsien is van navigasieligte en -figure, loodsleer, asook van middels om geluid- en noodseine te maak.

X. Dat die skip in alle ander opsigte aan die voorskrifte van die Regulasies voldoen het vir sover hierdie voorskrifte daarop van toepassing is.

Hierdie sertifikaat is uitgereik op gesag van die.....

Regering. Dit bly van krag tot.....

Uitgereik te.....op hede die.....dag van.....19.....

Hier volg die seël of handtekening van die owerheid wat bevoeg is om die sertifikaat uit te reik.

.....

Seël

Indien die sertifikaat geteken word, moet die volgende paragraaf bygevoeg word:

Die ondergetekende verklaar dat hy behoorlik deur genoemde Regering gemagtig is om hierdie sertifikaat uit te reik.

.....

Handtekening

Opmerking.—Dit is voldoende om die jaar te meld waarin die kiel gelê is of waarin die skip op 'n dergelike stadium van konstruksie was, behalwe in die geval van die jaar 1965 en die jaar waarin die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1974, in werking getree het, in welke gevalle die werklike datum aangegee moet word.

In die geval van 'n skip wat omgeskep is ooreenkomstig Regulasie 1 (b) (i) van Hoofstuk II-1 of Regulasie 1 (a) (i) van Hoofstuk II-2 moet die datum aangegee word waarop die omskeppingswerk begin is.

IV. That the life-saving appliances provided for a total number of.....persons and no more, viz.:

.....lifeboats (including.....motor lifeboats) capable of accommodating.....persons, and.....motor lifeboats fitted with radiotelegraph installation and searchlight (included in the total lifeboats shown above) and.....motor lifeboats fitted with searchlight only (also included in the total lifeboats shown above), requiring.....certificated lifeboatmen;

.....liferafts, for which approved launching devices are required, capable of accommodating.....persons; and

.....liferafts, for which approved launching devices are not required, capable of accommodating.....persons;

.....buoyant apparatus capable of supporting.....persons;

.....lifebuoys;

.....life-jackets.

V. That the lifeboats and liferafts were equipped in accordance with the provisions of the Regulations.

VI. That the ship was provided with a line-throwing appliance and portable radio apparatus for survival craft, in accordance with the provisions of the Regulations.

VII. That the ship complied with the requirements of the Regulations as regards radiotelegraph installations, viz.:

	Requirements of Regulations	Actual provision
Hours of listening by operator.....	.....	.....
Number of operators.....	.....	.....
Whether auto alarm fitted.....	.....	.....
Whether main installation fitted.....	.....	.....
Whether reserve installation fitted...	.....	.....
Whether main and reserve transmitters electrically separated or combined.....	.....	.....
Whether direction-finder fitted.....	.....	.....
Whether radio equipment for homing on the radiotelephone distress frequency fitted.....	.....	.....
Whether radar fitted.....	.....	.....
Number of passengers for which certificated.....	.....	.....

VIII. That the functioning of the radiotelegraph installations for motor lifeboats and/or the portable radio apparatus for survival craft, if provided, complied with the provisions of the Regulations

IX. That the ship complied with the requirements of the Regulations as regards fire-detecting and fire-extinguishing appliances, radar echo-sounding device and gyro-compass and was provided with navigation lights and shapes, pilot ladder, and means of making sound signals and distress signals in accordance with the provisions of the Regulations and also the International Regulations for Preventing Collisions at Sea in force.

X. That in all other respects the ship complied with the requirements of the Regulations, so far as these requirements apply thereto.

This certificate is issued under the authority of the.....

Government. It will remain in force until.....

Issued at.....the.....day of.....19.....

Here follows the seal or signature of the authority entitled to issue the certificate.

.....

Seal

If signed, the following paragraph is to be added:

The undersigned declares that he is duly authorized by the said Government to issue this certificate.

.....

Signature

Note.—It will be sufficient to indicate the year in which the keel was laid or when the ship was at a similar stage of construction except for 1965 and the year of the coming into force of the International Convention for the Safety of Life at Sea, 1974, in which cases the actual date should be given.

In the case of a ship which is converted as provided in Regulation I (b) (i) of Chapter II-1 or Regulation 1 (a) (i) of Chapter II-2, the date on which the work of conversion was begun should be given.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

Vorm van Veiligheidsertifikaat vir Kernvragskepe

KERNVRAGSKIPVEILIGHEIDSERTIFIKAAT

(Amptelike Seël)

.....

Land

Uitgereik ingevolge die bepalings van die

INTERNASIONALE KONVENSIE VIR DIE BEVEILIGING VAN MENSELEWENS OP SEE, 1974

Naam van skip	Onderskeidende nommer of letters	Hawe waar geregistreer	Bruto tonnemaat	Datum waarop die kiel gelê is (lees Opmerking hieronder)
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

Die (*Naam*) Regering sertifiseer
Ek, die ondergetekende.....(*Naam*) sertifiseer

I. Dat bogenoemde skip ooreenkomstig die bepalings van die Konvensie hierbo genoem, behoorlik ondersoek is.

II. Dat die skip, wat 'n kernskip is, aan al die vereistes van Hoofstuk VIII van die Konvensie voldoen het en in ooreenstemming was met die Veiligheidsaanslag wat vir die skip goedgekeur is.

III. Dat uit die ondersoek geblyk het dat die skip aan Regulasie 10 van Hoofstuk I van die Konvensie se vereistes betreffende die romp, masjinerie en uitrusting, asook aan die verbandhebbende vereistes van Hoofstuk II-1 en Hoofstuk II-2 voldoen het.

IV. Dat die reddingstoestelle voorsiening maak vir altesaam hoogstens.....persone, t.w.:

.....reddingsbote aan die bakboord wat ruimte bied vir .....persone;

.....reddingsbote aan die stuurboord wat ruimte bied vir .....persone;

.....motorreddingsbote (inbegrepe by die totale getal reddingsbote hierbo aangetoon), met inbegrip van .....motorreddingsbote toegerus met radiotelegraafinstallasie en soeklig, en.....motorreddingsbote wat slegs met 'n soeklig toegerus is;

.....reddingsvlotte, waarvoor goedgekeurde tewaterlatingstoestelle vereis word en wat ruimte bied vir..... persone; en

.....reddingsvlotte, waarvoor goedgekeurde tewaterlatingstoestelle nie vereis word nie en wat ruimte bied vir .....persone;

.....reddingsboeie;

.....reddingsbaadjies.

V. Dat die reddingsbote en -vlotte uitgerus is ooreenkomstig die bepalings van die Regulasies wat 'n aanhangsel van die Konvensie uitmaak.

VI. Dat die skip voorsien is van 'n lynwerptoestel en draagbare radio-apparaat vir reddingsvaartuie ooreenkomstig die bepalings van die Regulasies.

VII. Dat die skip voldoen het aan die voorskrifte van die Regulasies betreffende radiotelegraafinstallasies, t.w.:

	Voorskrifte van Regulasies	Werklike toestand
Luisterure van operateur.....	.....	.....
Getal operateurs.....	.....	.....
Is daar 'n outo-alarmtoestel?.....	.....	.....
Is daar 'n hoofinstallasie?.....	.....	.....
Is daar 'n reserwe-installasie?.....	.....	.....
Is die hoof- en reserwesenders elekties geskei of gekombineer?.....	.....	.....
Is daar 'n rigtingsoeker?.....	.....	.....
Is daar radio-apparaat vir aanpeiling op die radiotelefoonnoodfrekwensie geïnstalleer?.....	.....	.....
Is daar radar geïnstalleer?.....	.....	.....

VIII. Dat die funksionering van die radiotelegraafinstallasies vir motorreddingsbote en/of die draagbare radio-apparaat vir reddingsvaartuie, as daar is, aan die voorskrifte van die Regulasies voldoen het.

Form of Safety Certificate for Nuclear Cargo Ships

NUCLEAR CARGO SHIP SAFETY CERTIFICATE

(Official Seal)

.....

Country

Issued under the provisions of the

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

Name of Ship	Distinctive Number or Letters	Port of Registry	Gross Tonnage	Date on which keel was laid (see NOTE below)
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

The (*Name*) Government certifies
I, the undersigned.....(*Name*) certify

I. That the above-mentioned ship has been duly surveyed in accordance with the provisions of the Convention referred to above.

II. That the ship, being a nuclear ship, complied with all requirements of Chapter VIII of the Convention and conformed to the Safety Assessment approved for the ship.

III. That the survey showed that the ship satisfied the requirements set out in Regulation 10 of Chapter I of the Convention as to hull, machinery and equipment, and complied with the relevant requirements of Chapter II–1 and Chapter II–2.

IV. That the life-saving appliances provide for a total number of .....persons and no more, viz.:

.....lifeboats on port side capable of accommodating..... persons;

.....lifeboats on starboard side capable of accommodating .....persons;

.....motor lifeboats (included in the total lifeboats shown above) including.....motor lifeboats fitted with radiotelegraph installation and searchlight, and..... motor lifeboats fitted with searchlight only;

.....liferafts, for which approved launching devices are required, capable of accommodating.....persons; and

.....liferafts for which approved launching devices are not required, capable of accommodating.....persons;

.....lifebuoys;

.....life-jackets.

V. That the lifeboats and liferafts were equipped in accordance with the provisions of the Regulations annexed to the Convention.

VI. That the ship was provided with a line-throwing apparatus and portable radio apparatus for survival craft in accordance with the provisions of the Regulations.

VII. That the ship complied with the requirements of the Regulations as regards radiotelegraph installations, viz.:

	Requirements of Regulations	Actual provision
Hours of listening by operator.....	.....	.....
Number of operators.....	.....	.....
Whether auto alarm fitted.....	.....	.....
Whether main installation fitted.....	.....	.....
Whether reserve installation fitted...	.....	.....
Whether main and reserve transmitters electrically separated or combined.....	.....	.....
Whether direction-finder fitted.....	.....	.....
Whether radio equipment for homing on the radiotelephone distress frequency fitted.....	.....	.....
Whether radar fitted.....	.....	.....

VIII. That the functioning of the radiotelegraph installations for motor lifeboats, and/or the portable radio apparatus for survival craft, if provided, complied with the provisions of the Regulations.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

IX. Dat uit die inspeksie geblyk het dat die skip voldoen het aan die voorskrifte van genoemde Konvensie betreffende brandblustoestelle, radar, eggopeilingsapparaat en tolkompas en ooreenkomstig die bepalings van die Regulasies en die geldende Internasionale Botsingsregulasies voorsien is van navigasieligte en -figure, loodsleer, en middels om geluid- en noodseine te maak.

X. Dat die skip in alle ander opsigte aan die voorskrifte van die Regulasies voldoen het vir sover hierdie voorskrifte daarop van toepassing is.

Hierdie sertifikaat is uitgereik op gesag van die.....

Regering. Dit bly van krag tot.....

Uitgereik te.....op hede die.....dag van.....19.....

Hier volg die seël of handtekening van die owerheid wat bevoeg is om die sertifikaat uit te reik.

.....

Seël

Indien die sertifikaat geteken word, moet die volgende paragraaf bygevoeg word:

Die ondergetekende verklaar dat hy behoorlik deur genoemde Regering gemagtig is om hierdie sertifikaat uit te reik.

.....

Handtekening

Opmerking.—Dit is voldoende om die jaar te meld waarin die kiel gelê is of waarin die skip op 'n dergelike stadium van konstruksie was, behalwe in die geval van die jaar 1965 en die jaar waarin die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1974, in werking getree het, in welke gevalle die werklike datum aangegee moet word.

IX. That the inspection showed that the ship complied with the requirements of the said Convention as regards fire-extinguishing appliances, radar, echo-sounding device and gyro-compass and was provided with navigation lights and shapes, pilot ladder, and means of making sound signals and distress signals in accordance with the provisions of the Regulations and the International Regulations for Preventing Collisions at Sea in force.

X. That in all other respects the ship complied with the requirements of the Regulations so far as these requirements apply thereto.

This certificate is issued under the authority of the.....

Government. It will remain in force until.....

Issued at.....the.....day of.....19.....

Here follows the seal or signature of the authority entitled to issue the certificate.

.....

Seal

If signed, the following paragraph is to be added:

The undersigned declares that he is duly authorized by the said Government to issue this certificate.

.....

Signature

Note.—It will be sufficient to indicate the year in which the keel was laid or when the ship was at a similar stage of construction except for the year 1965 and the year of the coming into force of the International Convention for the Safety of Life at Sea, 1974, in which cases the actual date should be given.

BOTHALIA

Bothalia is 'n medium vir die publikasie van plantkundige artikels oor die flora en plantegroei van Suidelike Afrika. Een of twee dele van die tydskrif word jaarliks gepubliseer.

Die volgende dele is beskikbaar:

Vol. 3 Deel 1 uit druk
2 1937 75c
3 1938 75c
4 1939 75c

Vol. 4 Deel 1 1941 75c
2 1942 75c
3 1948 75c
4 1948 75c

Vol. 5 1950 R3

Vol. 6 Deel 1 1951 R1,50
2 1954 R2,50
3 1956 R2
4 1957 R2

Vol. 7 Deel 1 1958 R2
2 1960 R3
3 1961 R3
4 1962 R3

Vol. 8 Deel 1 1962 R3
2 1964 R3
3 1965 R3
4 1965 R3

Supplement

Vol. 9 Deel 1 1966 R3
2 1967 R3
3 en 4
1969 R6

Vol. 10 Deel 1 1969 R3
2 1971 R3
3 1971 R3
4 1972 R3

Vol. 11 Deel 1 en 2
1973 R6
3 1974 R3
4 1975 R3

Vol. 12 Deel 1 1976 R5
2 1977 R5
3 1978 R7,50

Verkrygbaar van die Direkteur, Afdeling Landbou-inligting, Privaatsak X144, Pretoria.

Verkoopbelasting moet by alle binnelandse bestellings ingesluit word.

BOTHALIA

Bothalia is a medium for the publication of botanical papers dealing with the flora and vegetation of Southern Africa. One or two parts of the journal are published annually.

The following parts are available:

Vol. 3 Part 1 out of print
2 1937 75c
3 1938 75c
4 1939 75c

Vol. 4 Part 1 1941 75c
2 1942 75c
3 1948 75c
4 1948 75c

Vol. 5 1950 R3

Vol. 6 Part 1 1951 R1,50
2 1954 R2,50
3 1956 R2
4 1957 R2

Vol. 7 Part 1 1958 R2
2 1960 R3
3 1961 R3
4 1962 R3

Vol. 8 Part 1 1962 R3
2 1964 R3
3 1965 R3
4 1965 R3

Supplement

Vol. 9 Part 1 1966 R3
2 1967 R3
3 and 4
1969 R6

Vol. 10 Part 1 1969 R3
2 1971 R3
3 1971 R3
4 1972 R3

Vol. 11 Part 1 and 2
1973 R6
3 1974 R3
4 1975 R3

Vol. 12 Part 1 1976 R5
2 1977 R5
3 1978 R7,50

Obtainable from the Director, Division of Agricultural Information, Private Bag X144, Pretoria.

Sales tax must accompany all inland orders.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

THE ONDERSTEPOORT JOURNAL OF VETERINARY RESEARCH

Die "Onderstepoort Journal of Veterinary Research" word deur die Staatsdrukker, Pretoria, gedruk en is verkrygbaar van die Direkteur, Afdeling Landbou-inligting, Departement van Landbou-tegniese Dienste, Privaatsak X144, Pretoria, 0001, aan wie ook alle navrae in verband met die tydskrif gerig moet word.

Hierdie publikasie is 'n voortsetting van die "Reports of the Government Veterinary Bacteriologist of the Transvaal" wat terugdateer tot 1903 en waarvan 18 verskyn het tot 1932. Dit is gevolg deur 40 volumes van die "Onderstepoort Journal". Tans bestaan elke volume uit vier nommers wat teen R2 binnelands en R2,50 buitelands per nommer van bogenoemde adres verkrygbaar is.

Direkteure van laboratoriums ens. wat begerig is om publikasies om te ruil moet in verbinding tree met die Direkteur, Navorsings-instituut vir Veeartsenykunde, Pk. Onderstepoort, 0110, Republiek van Suid-Afrika.

Verkoopbelasting moet by binnelandse bestellings ingesluit word.

THE ONDERSTEPOORT JOURNAL OF VETERINARY RESEARCH

The Onderstepoort Journal of Veterinary Research is printed by the Government Printer, Pretoria, and is obtainable from the Director, Division of Agricultural Information, Department of Agricultural Technical Services, Private Bag X144, Pretoria, 0001, to whom all communications should be addressed.

This publication is a continuation of the Reports of the Government Veterinary Bacteriologist of the Transvaal which date back to 1903 and of which 18 have appeared up to 1932. These were followed by 40 volumes of the Onderstepoort Journal. At present each volume comprises four numbers which are obtainable at R2, other countries R2,50 per number from the above address.

Directors of laboratories etc. desiring to exchange publications are invited to communicate with the Director, Veterinary Research Institute, P.O. Onderstepoort, 0110, Republic of South Africa.

Sales tax must accompany inland orders.

PHYTOPHYLACTICA

Hierdie publikasie is 'n voortsetting van die Suid-Afrikaanse Tydskrif vir Landbouwetenskap Jaargang 1 tot 11, 1958–1968 en bevat artikels oor Entomologie, Dierkundige Plantplae, Nematologie, Plantpatologie, Mikrobiologie, Mikologie, Taksonomiese Studies, Biologie en Beheer. Vier dele van die tydskrif word per jaar gepubliseer.

Verdienstelike landboukundige bydraes van oorspronklike wetenskaplike navorsing word vir plasing in hierdie tydskrif verwelkom. Voorskrifte vir die opstel van sulke bydraes is verkrygbaar van die Direkteur, Landbou-inligting, Privaatsak X144, Pretoria, aan wie ook alle navrae in verband met die tydskrif gerig moet word.

Die tydskrif is verkrygbaar van bogenoemde adres teen R1,50 per eksemplaar of R6 per jaar, posvry (Buitelands R1,75 per eksemplaar of R7 per jaar).

Verkoopbelasting moet by binnelandse bestellings ingesluit word.

PHYTOPHYLACTICA

This publication is a continuation of the South African Journal of Agricultural Science Vol. 1 to 11 1958–1968 and deals with Entomology, Zoological Plant Pests, Nematology, Plant Pathology, Microbiology, Mycology, Taxonomic Studies, Biology and Control. Four parts of the journal are published annually.

Contributions of scientific merit on agricultural research are invited for publication in this journal. Directions for the preparation of such contributions are obtainable from the Director, Agricultural Information, Private Bag X144, Pretoria, to whom all communications in connection with the journal should be addressed.

The journal is obtainable from the above-mentioned address at R1,50 per copy or R6 per annum, post free (Other countries R1,75 per copy or R7 per annum).

Sales tax must accompany inland orders.

Reproduced by Sabinet Online in terms of Government Printer's Copyright Authority No. 10505 dated 02 February 1998

INHOUD

No.		Bladsy No.	Staatskoerant No.
	PROKLAMASIE		
R. 203	Handelskeepvaartwet (57/1951): Soos gewysig	1	7270

CONTENTS

No.		Page No.	Gazette No.
	PROCLAMATION		
R. 203	Merchant Shipping Act (57/1951): As amended	1	7270