

BUITENGEWONE



EXTRAORDINARY

STAATSKOERANT VAN DIE REPUBLIEK VAN SUID-AFRIKA

REPUBLIC OF SOUTH AFRICA GOVERNMENT GAZETTE

REGULASIEKOERANT No. 908

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No. 1972.

PROKLAMASIE

VAN DIE WAARNEMENDE STAATSPRESIDENT VAN DIE
REPUBLIEK VAN SUID-AFRIKA

No. R.12.]

HANDELSKEEPVAARTWET, 1951 (WET NO. 57
VAN 1951), SOOS GEWYSIG

VERVANGING VAN DIE INTERNASIONALE KON-
VENTSIE VIR DIE BEVEILIGING VAN MENSE-
LEWENS OP SEE, 1948, DEUR DIE INTER-
NASIONALE KONVENTSIE VIR DIE BEVEI-
LIGING VAN MENSELEWENS OP SEE, 1960.

Kragtens die bepalings van artikel 356bis (1) van die Handelskeepvaartwet, 1951 (Wet No. 57 van 1951), soos gewysig, vervang ek hierby die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1948, wat in die Tweede Bylae van genoemde Wet verskyn, deur die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960, wat in die Bylae vervat is, met ingang van 13 Maart 1968.

Gegee onder my Hand en Seël van die Republiek van Suid-Afrika te Pietersburg op hede die Dertiende dag van Januarie Eenduisend Negehonderd Agt-en-sestig.

J. F. NAUDÉ,
Waarnemende Staatspresident.

Op las van die Waarnemende Staatspresident-in-rade.
B. J. SCHOE MAN.

BYLAE

INTERNASIONALE KONVENTSIE VIR DIE BEVEI-
LIGING VAN MENSELEWENS OP SEE, 1960

ARTIKEL I

(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

PROCLAMATION

BY THE ACTING STATE PRESIDENT OF THE REPUBLIC OF
SOUTH AFRICA

No. R.12.]

MERCHANT SHIPPING ACT, 1951 (ACT NO. 57 OF
1951), AS AMENDED

SUBSTITUTION FOR THE INTERNATIONAL CON-
VENTION FOR THE SAFETY OF LIFE AT SEA,
1948, OF THE INTERNATIONAL CONVENTION
FOR THE SAFETY OF LIFE AT SEA, 1960.

Under the powers vested in me by Section 356bis (1) of the Merchant Shipping Act, 1951 (Act No. 57 of 1951), as amended, I hereby substitute for the International Convention for the Safety of Life at Sea, 1948, appearing in the Second Schedule to the said Act, the International Convention for the Safety of Life at Sea, 1960, contained in the Annex hereto, with effect from 13th March, 1968.

Given under my Hand and the Seal of the Republic of South Africa at Pietersburg on this Thirteenth day of January, One Thousand Nine Hundred and Sixty-eight.

J. F. NAUDÉ,
Acting State President.

By order of the Acting State President-in-Council.
B. J. SCHOE MAN.

ANNEX

INTERNATIONAL CONVENTION FOR THE
SAFETY OF LIFE AT SEA, 1960

ARTICLE I

(a) The Contracting Governments undertake to give effect to the provisions of the present Convention and of the Regulations annexed thereto, which shall be deemed to constitute an integral part of the present Convention.

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

ARTIKEL II

Die skepe waarop die huidige Konvensie van toepassing is, is skepe wat geregistreer is in lande waarvan die Regerings Kontrakterende Regerings is, asook skepe geregistreer in gebiede waartoe die huidige Konvensie kragtens artikel XIII uitgebrei is.

ARTIKEL III

Wette, regulasies

Die Kontrakterende Regerings verbind hulle om aan die Intergoewerneurale 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) voldoende eksemplare van hul sertifikate uitgereik ooreenkomsdig 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 slechte 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 'n 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 verlof 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.

Every reference to the present Convention implies at the same time a reference to these Regulations.

(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 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

The ships to which the present Convention applies are ships registered in countries the Governments of which are Contracting Governments, and ships registered in territories to which the present Convention is extended under Article XIII.

ARTICLE III

Laws, Regulations

The Contracting Governments undertake to communicate to and deposit with the Inter-Governmental Maritime Consultative Organization (hereinafter called 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) No ship, which is not subject to the provisions of the present Convention at the time of its departure on any voyage, shall 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 moving persons from any territory 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) Kennisgewing van sodanige verlof, tesame met 'n uiteensetting van die omstandighede, moet deur die Kontrakterende Regering wat sodanige verlof toestaan, aan die Organisasie gestuur word.

ARTIKEL VI

Opskorting in die geval van oorlog

(a) In die geval van oorlog of ander vyandelikhede, kan 'n Kontrakterende Regering wat meen dat hy, hetsy as oorlogvoerende of as neutrale, geraak word, die regulasies wat as aanhangsel hiervan verskyn, in hul geheel of gedeeltelik opskort. Die Regering wat tot opskorting oorgaan, moet die Organisasie onverwyd van sodanige opskorting in kennis stel.

(b) Sodanige opskorting ontnem ander Kontrakterende Regerings geen reg wat hulle ingevolge die huidige Konvensie besit om oor die skepe van die Regering wat opskorting toepas, beheer uit te oefen wanneer sulke skepe in hul hawens is nie.

(c) Die Regering wat tot opskorting oorgegaan het, kan te eniger tyd die opskorting beëindig en moet die Organisasie onverwyd van sodanige beëindiging in kennis stel.

(d) Die Organisasie moet al die Kontrakterende Regerings in kennis stel van enige opskorting of beëindiging daarvan ingevolge hierdie artikel.

ARTIKEL VII

Vroeëre verdrae en konvensies

(a) Vir sover dit die Kontrakterende Regerings betref, word die Internasionale Konvensie vir die Beveiliging van Menselwens op See, wat op 10 Junie 1948 te 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, ges 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 VIII

Spesiale reëls by ooreenkoms opgestel

Wanneer daar ooreenkomsdig 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 IX

Wysigings

(a) (i) Die huidige Konvensie kan by eenstemmige ooreenkoms tussen die Kontrakterende Regerings gewysig word.

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

ARTICLE VI

Suspension in case of War

(a) In case of war or other hostilities, a Contracting Government which considers that it is affected, whether as a belligerent or as a neutral, may suspend the operation of the whole or any part of the Regulations annexed hereto. The suspending Government shall immediately give notice of any such suspension to the Organization.

(b) Such suspension shall not deprive other Contracting Governments of any right of control under the present Convention over the ships of the suspending Government when such ships are within their ports.

(c) The suspending Government may at any time terminate such suspension and shall immediately give notice of such termination to the Organization.

(d) The Organization shall notify all Contracting Governments of any suspension or termination of suspension under this Article.

ARTICLE VII

Prior Treaties and Conventions

(a) As between the Contracting Governments the present Convention replaces and abrogates the International Convention for the Safety of Life at Sea which was signed in London on 10 June 1948.

(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 VIII

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 Organization for circulation to all Contracting Governments.

ARTICLE IX

Amendments

(a) (i) The present Convention may be amended by unanimous agreement between the Contracting Governments.

(ii) Op versoek van 'n Kontrakterende Regering moet 'n voorgestelde wysiging deur die Organisasie aan al die Kontrakterende Regerings vir oorweging en aanneming ingevolge hierdie paragraaf meegegee word.

(b) (i) 'n Kontrakterende Regering kan te eniger tyd 'n wysiging van die huidige Konvensie aan die Organisasie voorstel en indien so 'n voorstel deur 'n tweederdemeerderheid van die Vergadering van die Organisasie (hierna genoem „die Vergadering") aanvaar word op 'n aanbeveling gedoen deur 'n tweederdemeerderheid van die Maritieme Veiligheidskomitee van die Organisasie (hierna genoem die Maritieme Veiligheidskomitee), moet die Organisasie dit aan al die Kontrakterende Regerings vir hul aanneming deurstuur.

(ii) So 'n aanbeveling van die Maritieme Veiligheidskomitee moet minstens ses maande voordat dit deur die Vergadering oorweeg word, deur die Organisasie aan al die Kontrakterende Regerings vir oorweging meegegee word.

(c) (i) 'n Konferensie van Regerings om oorweging te skenk aan wysigings van die huidige Konvensie deur 'n Kontrakterende Regering voorgestel, moet te eniger tyd deur die Organisasie op versoek van een derde van die Kontrakterende Regerings belê word.

(ii) Elke wysiging wat op so 'n konferensie met 'n meerderheid van twee derdes van die Kontrakterende Regerings aanvaar word, moet deur die Organisasie aan al die Kontrakterende Regerings vir aanneming deur hulle meegegee word.

(d) Elke wysiging wat ooreenkomstig paragraaf (b) of (c) van hierdie artikel aan Kontrakterende Regerings vir aanneming deur hulle meegegee word, word vir al die Kontrakterende Regerings, behalwe dié wat voor die inwerkingtreding daarvan 'n verklaring uitreik dat hulle die wysiging nie aanneem nie, van krag twaalf maande na die datum waarop die wysiging deur twee derdes van die Kontrakterende Regerings, met inbegrip van twee derdes van die Regerings verteenwoordig in die Maritieme Veiligheidskomitee, aangeneem is.

(e) Met 'n meerderheidstem van twee derdes, met inbegrip van twee derdes van die Regerings verteenwoordig in die Maritieme Veiligheidskomitee, en onderworpe aan die instemming van twee derdes van die Kontrakterende Regerings kragtens die huidige Konvensie, kan die Vergadering, of 'n konferensie wat ooreenkomstig paragraaf (c) van hierdie artikel met 'n tweederdemeerderheid belê is, ten tyde van aanvaarding van die wysiging beslis dat die wysiging so belangrik is dat 'n Kontrakterende Regering wat ooreenkomstig paragraaf (d) van hierdie artikel 'n verklaring uitreik en die wysiging nie binne 'n tydperk van twaalf maande na die inwerkingtreding daarvan aanneem nie, na verstryking van bedoelde tydperk ophou om 'n party by die huidige Konvensie te wees.

(f) 'n Wysiging van die huidige Konvensie wat ooreenkomstig hierdie artikel met betrekking tot die bou van 'n skip aangebring word, is slegs van toepassing op skepe waarvan die kiele gelê is na die datum waarop die wysiging van krag geword het.

(g) Die Organisasie moet al die Kontrakterende Regerings in kennis stel van wysigings wat ingevolge hierdie artikel van krag word asook van die datum waarop sodanige wysigings van krag word.

(h) 'n Aanneming of verklaring ooreenkomstig hierdie artikel moet geskied by wyse van skriftelike kennisgewing aan die Organisasie, wat alle Kontrakterende Regerings van die ontvangs van die aannemingsbesluit of van die verklaring in kennis moet stel.

ARTIKEL X

Ondertekening en aanneming

(a) Die huidige Konvensie bly vir een maand vanaf vandag se datum beskikbaar vir ondertekening en bly

(ii) Upon the request of any Contracting Government a proposed amendment shall be communicated by the Organization to all Contracting Governments for consideration and acceptance under this paragraph.

(b) (i) An amendment to the present Convention may be proposed to the Organization at any time by any Contracting Government and such proposal, if adopted by a two-thirds majority of the Assembly of the Organization (hereinafter called the Assembly), upon recommendation adopted by a two-thirds majority of the Maritime Safety Committee of the Organization (hereinafter called the Maritime Safety Committee), shall be communicated by the Organization to all Contracting Governments for their acceptance.

(ii) Any such recommendation by the Maritime Safety Committee shall be communicated by the Organization to all Contracting Governments for their consideration at least six months before it is considered by the Assembly.

(c) (i) A conference of Governments to consider amendments to the present Convention proposed by any Contracting Government shall at any time be convened by the Organization upon the request of one-third of the Contracting Governments.

(ii) Every amendment adopted by such conference by a two-thirds majority of the Contracting Governments shall be communicated by the Organization to all Contracting Governments for their acceptance.

(d) Any amendment communicated to Contracting Governments for their acceptance under paragraph (b) or (c) of this Article shall come into force for all Contracting Governments, except those which before it comes into force make a declaration that they do not accept the amendment, twelve months after the date on which the amendment is accepted by two-thirds of the Contracting Governments including two-thirds of the Governments represented on the Maritime Safety Committee.

(e) The Assembly, by a two-thirds majority vote, including two-thirds of the Governments represented on the Maritime Safety Committee, and subject to the concurrence of two-thirds of the Contracting Governments to the present Convention, or a conference convened under paragraph (c) of this Article by a two-thirds majority vote, may determine at the time of its adoption that the amendment is of such an important nature that any Contracting Government which makes a declaration under paragraph (d) of this Article and which does not accept the amendment within a period of twelve months after the amendment comes into force, shall, upon the expiry of this period, cease to be a party to the present Convention.

(f) 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 after the date on which the amendment comes into force.

(g) The Organisation shall inform all Contracting Governments of any amendments which come into force under this Article, together with the date on which such amendments shall come into force.

(h) Any acceptance or declaration under this Article shall be made by a notification in writing to the Organisation, which shall notify all Contracting Governments of the receipt of the acceptance or declaration.

ARTICLE X

Signature and Acceptance

(a) The present Convention shall remain open for signature for one month from this day's date and shall

daarna beskikbaar vir aanneming. Regerings van State kan tot die Konvensie toetree deur—

- (i) ondertekening sonder voorbehoud wat betref aanneming;
- (ii) ondertekening onderworpe aan aanneming gevolg deur aanneming; of
- (iii) aanneming.

(b) Aanneming geskied deur die indiening van 'n dokument by die Organisasie, wat al die Regerings wat die Konvensie reeds aangeneem het, in kennis moet stel van elke aannemingsbesluit wat ontvang is en van die datum van ontvangs daarvan.

ARTIKEL XI

Inwerkingtreding

(a) Die huidige Konvensie tree in werking twaalf maande vanaf die datum waarop minstens vyftien aannemingsbesluite, met inbegrip van sewe deur lande wat elk minstens eenmiljoen bruto ton skepe het, ooreenkomsdig artikel X ingedien is. Die Organisasie moet al die Regerings wat die huidige Konvensie onderteken of aangeneem het, in kennis stel van die datum waarop dit in werking tree.

(b) Aannemingsbesluite wat ingedien word na die datum waarop die huidige Konvensie van krag word, tree in werking drie maande na die datum waarop hul ingedien is.

ARTIKEL XII

Opseggung

(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) Opseggung moet geskied deur skriftelike kennisgewing aan die Organisasie, wat al die ander Kontrakterende Regerings in kennis moet stel van enige opseggung wat ontvang is, asook van die datum van die ontvangs daarvan.

(c) 'n Opseggung tree in werking een jaar, of sodanige langer tydperk as wat in die kennisgewing aangegee word, nadat dit deur die Organisasie ontvang is.

ARTIKEL XIII

Gebiede

(a) (i) Die Verenigde Volke, in gevalle waar dié die administrerende owerheid van 'n gebied is, of 'n Kontrakterende Regering wat verantwoordelik is vir die internasionale betrekings van 'n gebied, moet so gou moontlik met sodanige gebied oorleg pleeg ten einde die huidige Konvensie na daardie gebied te probeer uitbrei, en kan te eniger tyd by skriftelike kennisgewing aan die Organisasie verklaar dat die huidige Konvensie op sodanige gebied van toepassing is.

(ii) Die huidige Konvensie is vanaf die datum van ontvangs van die kennisgewing of vanaf sodanige ander datum as wat in die kennisgewing aangegee word, van toepassing op die gebied wat daarin genoem is.

(b) (i) Die Verenigde Volke of 'n Kontrakterende Regering wat ooreenkomsdig paragraaf (a) van hierdie artikel 'n verklaaring uitgereik het, kan te eniger tyd na verloop van 'n tydperk van vyf jaar vanaf die datum waarop die Konvensie aldus tot 'n gebied uitgebrei is, by skriftelike kennisgewing aan die Organisasie verklaar dat die huidige Konvensie ophou om op die gebied of gebiede genoem in die kennisgewing van toepassing te wees.

thereafter remain open for acceptance. Governments of States may become parties to the Convention by—

- (i) signature without reservation as to acceptance;
- (ii) signature subject to acceptance followed by acceptance; or
- (iii) acceptance.

(b) Acceptance shall be effected by the deposit of an instrument with the Organization, which shall inform all Governments that have already accepted the Convention of each acceptance received and of the date of its receipt.

ARTICLE XI

Coming into Force

(a) The present Convention shall come into force twelve months after the date on which not less than fifteen acceptances, including seven by countries each with not less than one million gross tons of shipping, have been deposited in accordance with Article X. The Organization shall inform all Governments which have signed or accepted the present Convention of the date on which it comes into force.

(b) Acceptances deposited after the date on which the present Convention comes into force shall take effect three months after the date of their deposit.

ARTICLE XII

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 comes into force for that Government.

(b) Denunciation shall be effected by a notification in writing addressed to the Organization which shall notify all the other Contracting Governments of any denunciation received and of the date of its receipt.

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

ARTICLE XIII

Territories

(a) (i) The United Nations in cases where they are the administering authority for a territory or any Contracting Government responsible for the international relations of a territory shall as soon as possible consult with such territory in an endeavour to extend the present Convention to that territory and may at any time by notification in writing given to the Organization declare that the present Convention shall extend to such territory.

(ii) The present Convention shall from the date of the receipt of the notification or from such other date as may be specified in the notification extend to the territory named therein.

(b) (i) The United Nations or any Contracting Government which has made a declaration under paragraph (a) of this Article, at any time after the expiry of a period of five years from the date on which the Convention has been so extended to any territory, may by a notification in writing given to the Organization declare that the present Convention shall cease to extend to any such territory named in the notification.

(ii) Na een jaar, of na sodanige langer tydperk as wat in die kennisgewing aangegee word, vanaf die datum van ontvangs van die kennisgewing deur die Organisasie hou die huidige Konvensie op om van toepassing te wees op 'n gebied wat daarin genoem is.

(c) Die Organisasie moet al die Kontrakterende Regerings in kennis stel wanneer die huidige Konvensie ooreenkomsdig paragraaf (a) van hierdie artikel op gebiede van toepassing word of ooreenkomsdig die bepalings van paragraaf (b) ophou om aldus van toepassing te wees, en in elke geval moet vermeld word vanaf watter datum die huidige Konvensie aldus van toepassing is of sal ophou om aldus van toepassing te wees.

ARTIKEL XIV

Registrasie

(a) Die huidige Konvensie moet vir bewaring ingedien word by die argief van die Organisasie, en die Sekretaris-generaal van die Organisasie moet gewaarmerkte afskrifte daarvan stuur aan al die Ondertekenende Regerings en aan alle ander Regerings wat die huidige Konvensie aanneem.

(b) Sodra die huidige Konvensie van krag word, moet dit deur die Organisasie by die Sekretaris-generaal van die Verenigde Volke geregistreer word.

Ten bewyse waarvan die ondergetekende Gevolmagtiges die huidige Konvensie onderteken het.

Gedoent te London op hede die sewentiende dag van Junie 1960 in 'n enkele eksemplaar in Engels en Frans, waarvan albei tekste ewe gesaghebbend is.

Die oorspronklike tekste sal by die Intergouvernementele Seevaartkonsultorganisasie ingedien word, tesame met tekste in die Russiese en Spaanse tale, wat vertalings sal wees.

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

HOOFSTUK I—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 waarvan in artikel I (a) van die huidige Konvensie melding gemaak word;
- (b) „Administrasie” die Regering van die land waarin die skip geregistreer is;
- (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, en vir hierdie doel word elke gebied vir die internasionale be-

(ii) The present Convention shall cease to extend to any territory mentioned in such notification one year, or such longer period as may be specified therein, after the date of receipt of the notification by the Organization.

(c) The Organization shall inform all the Contracting Governments of the extension of the present Convention to any territories under paragraph (a) of this Article, and of the termination of any such extension under the provisions of paragraph (b), stating in each case the date from which the present Convention has been or will cease to be so extended.

ARTICLE XIV

Registration

(a) The present Convention shall be deposited in the archives of the Organization and the Secretary-General of the Organization shall transmit certified true copies thereof to all Signatory Governments and to all other Governments which accept the present Convention.

(b) As soon as the present Convention comes into force it shall be registered by the Organization with the Secretary-General of the United Nations.

In witness whereof the undersigned Plenipotentiaries have signed the present Convention.

Done in London this seventeenth day of June, 1960, in a single copy in English and French, each text being equally authoritative.

The original texts will be deposited with the Intergovernmental Maritime Consultative Organization, together with texts in the Russian and Spanish languages which will be translations.

N.B.—Names of signatories not printed.

CHAPTER I.—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 referred to in Article I (a) of the present Convention.
- (b) “Administration” means the Government of the country in which the ship is registered.
- (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; and for this purpose every territory for the international

trekkinge waarvan 'n Kontrakterende Regering verantwoordelik is of waarvan die Verenigde Volke die administrerende owerheid is, as 'n afsonderlike land beskou;

(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 werkzaam is; en
- (ii) 'n kind onder een jaar;
- (f) 'n passasierskip 'n skip wat meer as twaalf 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 kernkrainstalasie toegerus is;
- (k) „nuwe skip” 'n skip waarvan die kiel gelê 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 6,080 voet of 1,852 meters.

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 tonnage.
- (iii) Skepe wat nie deur meganiese middels voortbeweeg word nie.
- (iv) Houtskepe van primitiewe bou, soos dhows, jonke, ens.
- (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

'n Skip wat nie normaal vir internasionale reise gebruik word nie maar onder buitegewone 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.

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

relations of which a Contracting Government is responsible or for which the United Nations are the administering authority is regarded as a separate country.

(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 twelve 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 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 6,080 feet or 1,852 metres.

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, such as dhows, junks, &c.
- (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 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 the safety requirements which are adequate in the opinion of the Administration for the voyage which is to be undertaken by the ship.

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

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 medeel 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 of aan opnemers wat vir die doel benoem is of aan organisasies wat deur kom erken word. In elke geval waarborg die betrokke Regering die volledigheid en doeltreffendheid van die inspeksie en ondersoek ten volle.

REGULASIE 7

Eerste en daaropvolgende ondersoeke van passasiersskepe

(a) 'n Passasierskip moet onderwerp word aan onvermelde ondersoek:—

- (i) 'n Ondersoek voordat die skip in diens gestel word.
- (ii) 'n Periodieke ondersoek al om die twaalf 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 verseker word dat die inrigtings, materiaal, en afmetings van die bouwerk, ketels en ander drukhouers en hul toebehore, hoof- en hulpmasjinerie, elektriese installasie, radio-installasie, radiotelegraafinstallasies in motorreddingsbote, draagbare radio-apparaat vir reddingsvaartuie, reddingstoestelle, brandosporings- en blustostelle,loodslere 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 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 en middels vir die gee van geluidseine en noodseine soos vereis deur die bepalings van die huidige Konvensie en die Internasionale Botsingsregulasies.

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

Initial and Subsequent 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 twelve 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 equipments, 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, radio-telegraph installations in motor lifeboats, portable radio apparatus for survival craft, life-saving appliances, fire detecting and extinguishing appliances, pilot ladders and other equipments, 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 equipments is in all respects satisfactory, and that the ship is provided with the lights, means of making sound signals and distress signals as required by the provisions of the present Convention and the International Collision Regulations.

(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 verseker word dat die skip, wat betref die bouwerk, ketels en ander drukhouers en hul toebehore, hoof- en hulpmasjinerie, elektriese installasie, radioinstallasie, radiotelegraafinstallasies in motorreddingsbote, draagbare radioapparaat vir reddingsvaartuie, reddingstoestelle, brandopsporings- en blustoestelle, loodslere 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 en middels vir die gee van geluidseine en noodseine moet ook deur bogenoemde ondersoek gedeck word ten einde te verseker dat hulle voldoen aan die vereistes van die huidige Konvensie en van die Internasjonale Botsingsregulasies.

(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 of vernuwings in alle opsigte bevredigend is en dat die skip in alle opsigte voldoen aan die bepalings van die huidige Konvensie en van die Internasjonale Botsingsregulasies 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 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 toets waaraan die hoof- en hulpketels, verbindingen, stoompype, hoogdrukvate, en brandstoffentanks vir binnebrandmasjiene onderwerp moet word, met ingebryk van die toetsprosedures wat gevolg moet word en die tussenpose tussen twee opeenvolgende toets.

REGULASIE 8

Ondersoeke van reddingstoestelle en ander uitrusting van vragskepe

Die reddingstoestelle, uitgesonderd 'n radiotelegraafinstallasie in 'n motorreddingsboot of 'n draagbare radioapparaat vir 'n reddingsvaartuig, en die brandblustoestelle van vragskepe waarop hoofstukke II en III van die huidige regulasies van toepassing is, moet onderwerp word aan die eerste en daaropvolgende ondersoeke soos in regulasie 7 van hierdie hoofstuk vir passasier-skepe 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, ligte en middels vir die gee van geluidseine in nuwe en bestaande skepe moet deur die ondersoek gedek word om te verseker dat hulle ten volle voldoen aan die vereistes van die huidige Konvensie en, waar van toepassing, van die Internasjonale Botsingsregulasies.

(ii) *The periodical survey shall include an inspection of the structure, boilers and other pressure vessels, machinery and equipments, including the outside of the ship's bottom. The surveys 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 detecting and extinguishing appliances, pilot ladders and other equipments, 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 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 Collision Regulations.*

(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 equipments, or whenever any important repairs or renewals are made. The surveys shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory, and that the ship complies in all respects with the provisions of the present Convention and of the International Collision Regulations, 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 the main and auxiliary boilers, connections, steam pipes, high pressure receivers, and fuel tanks for internal combustion engines are to be submitted, including the test procedures to be followed and the intervals between two consecutive tests.

REGULATION 8

Surveys of Life-Saving Appliances and other Equipments of Cargo Ships

The life-saving appliances, except a radiotelegraph installation in a motor lifeboat or a portable radio apparatus for survival craft, and the fire extinguishing appliances of cargo ships to which Chapters II and III of the present Regulations 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 sub-paragraph (a) (ii) of that Regulation. The fire control plans in new ships and the pilot ladders, lights 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 Collision Regulations.

REGULASIE 9

Ondersoek van radio-installasies van vragskepe

Die radio-installasies van vragskepe waarop hoofstuk IV van die huidige regulasies van toepassing is, en enige radiotelegraafinstallasie in 'n motorreddingsboot of 'n draagbare radio-apparaat vir reddingsvaartuie wat gedra word ooreenkomsdig die vereistes van hoofstuk III van die huidige regulasies, moet onderwerp word aan die eerste en daaropvolgende ondersoek 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 Vragskipveiligheidsradiotelefoniessertifikate 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 regulasie 7, 8, 9, of 10 voltooi is, mag geen verandering in die bouinrigtings, 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 die vereistes van hoofstukke II, 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 hoofstuk II, 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 en III en enige ander toepaslike vereistes van die huidige regulasies voldoen.

(iv) 'n Sertifikaat, genoem 'n Vragskipveiligheidsradio-telegrafiesertifikaat, 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 Vragskipveiligheidsradiotelefoniessertifikaat, 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.

REGULATION 9

Surveys of Radio Installations of Cargo Ships

The radio installations of cargo ships to which Chapter IV of the present Regulations applies 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 of the present Regulations shall be subject to initial and subsequent surveys as provided for passenger ships in Regulation 7 of this Chapter.

REGULATION 10

Survey 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 condition 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 equipments 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 has been completed, no change shall be made in the structural arrangements, machinery, equipments, &c. 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 requirements of Chapters II, 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 Chapter II, 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 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 radiotelegraph 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) Wanneer 'n skip ingevolge en ooreenkomsdig die bepalings van die huidige regulasies vrygestel word, word daar benewens die sertifikate voorgeskryf by hierdie paraaf, ook 'n sertifikaat wat 'n Vrystellingsertifikaat genoem word, aan die skip uitgereik.

(vii) Passasiervéiligheidsertifikate, Vragskipveiligheidskonstruksiesertifikate, Vragskipveiligheidsuitrustingsertifikate, Vragskipveiligheidsradiotelegrafiesertifikate, Vragskipveiligheidsradiotelefoniesertifikate en Vrystellingsertifikate moet uitgereik word of deur die Administrasie of 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 ooreenkomsdig die bepalings van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1948, en wat geldig is by die huidige Konvensie se inwerkintreding ten aansien van die Administrasie deur wie die sertifikaat uitgereik is, geldig totdat hy ingevolge die bepalings van regulasie 13 van hoofstuk I van daardie Konvensie verval.

(c) 'n Kontrakterende Regering moet nie sertifikate ingevolge en ooreenkomsdig die bepalings van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1948 of 1929, uitrek na die datum waarop aanname 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 aan die vereistes van die huidige regulasies voldoen is, moet hy ooreenkomsdig die huidige regulasies sertifikate ten opsigte van die skip uitrek. 'n Sertifikaat 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 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 twaalf maande uitgereik. Vragskipveiligheidsuitrustingsertifikate word uitgereik vir 'n tydperk van hoogstens 24 maande. Vrystellingsertifikate is geldig hoogstens vir die tydperk waarvoor die sertifikaat 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 vragsskepe van 300 of meer ton bruto tonemaat maar minder as 500 ton bruto tonnemaat oorspronklik uitgereik is, kan daardie sertifikaat teruggetrek word en 'n nuwe sertifikaat uitgereik word en laasgenoemde verstryk dan twaalf 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.

(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, 1948, 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 13 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, 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 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) 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 uitrek.

(b) Die vorm van die sertifikate moet dié wees van die modelle wat in die aanhangsel van die huidige regulasies verstrekk word. Die rangskikking van die gedrukte deel van die modelsertifikate moet presies weergegee word in die sertifikate wat uitgereik word of in gewaarmerkte afskrifte daarvan, en die besonderhede wat ingeval 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.

REGULASIE 17

Aanneming van sertifikate

Sertifikate wat uitgereik is op gesag van 'n Kontrakterende Regering, moet vir alle doeleindes wat deur die huidige Konvensie gedeke 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 gevold volgens die bepalings van die huidige regulasies die reg het om minder reddingsbote en ander reddingstoestelle te dra 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

(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

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.

(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 is subject in the ports of the other Contracting Governments to control by officers duly

amptenaar 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 gevhaar 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 skriftelik 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 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 ondersoek 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—KONSTRUKSIE

DEEL A—ALGEMEEN

REGULASIE 1

Toepassing

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

(ii) In die geval van bestaande passasierskepe en vrag-skepe waarvan die kiele gelê is op of na die datum waarop die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1948, in werking getree 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. In die geval van bestaande passasierskepe en vrag-skepe waarvan die kiele gelê is voor die datum waarop daardie Konvensie in werking getree het, moet die Administrasie verseker dat voldoen word aan die vereistes wat ingevolge hoofstuk II van daardie Konvensie toegepas is op bestaande skepe soos in daardie hoofstuk omskryf. Wat betref die vereistes van hoofstuk II van die huidige Konvensie wat nie in hoofstuk II van die Kon-

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 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.—CONSTRUCTION

PART A.—GENERAL

REGULATION 1

Application

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

(ii) In the case of existing passenger ships and cargo ships the keels of which were laid on or after 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 new ships as defined in that Chapter are complied with. In the case of existing passenger ships and cargo ships the keels of which were laid before the date of coming into force of that Convention, 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. As regards those requirements of Chapter II of the

vensie van 1948 vervat is nie, moet die Administrasie beslis watter van hierdie vereistes van toepassing sal wees op bestaande skepe soos in die huidige Konvensie omskryf.

(b) Vir die doeleindes van hierdie hoofstuk—

- (i) is 'n nuwe passasier skip 'n passasier skip waarvan die kiel gelê 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 passasier skip omgeskep is en word alle ander passasier skepe beskryf as bestaande passasier skepe;
- (ii) is 'n nuwe vragskip 'n vragskip waarvan die kiel gelê 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 passasier skip wat kragtens paragraaf (c) van regulasie 27 van hoofstuk III toegeelaat 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 verbandhebbende 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 nagekom word.

(e) In die geval van passasier skepe wat in spesiale ondernemings, bv. pelgrimsondernemings, gebruik word vir die vervoer van groot getalle passasier vir wie daar nie slaapbanke beskikbaar is nie, kan die Administrasie, indien hy daarvan oortuig is dat die vereistes van hierdie hoofstuk onmoontlik nagekom kan word, sulke skepe op die volgende voorwaardes van die nakoming van daardie vereistes vrystel indien hulle aan sy land behoort:

(i) Met betrekking tot konstruksie moet die volledigste voorsiening gemaak word wat die omstandighede van die onderneming toelaat.

(ii) Stappe moet gedoen word vir die opstel van algemene reëls wat in die bepaalde omstandighede van hierdie ondernemings van toepassing moet wees. Sulke reëls moet opgestel word in oorelog met sodanige ander Kontrakterende Regerings, indien enige, as wat by die vervoer van sulke passasier in sulke ondernemings regstreekse belang het.

Nieteenstaande enige bepalings van die huidige Konvensie bly die Simla-reëls, 1931, van krag tussen die partye wat wat daardie Reëls onderskryf het, totdat die reëls wat opgestel ingevolge subparagraaf (e) (ii) van hierdie regulasie in werking tree.

REGULASIE 2

Definisiës

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 ooreenkoms 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;

present Convention which are not contained in Chapter II of the 1948 Convention the Administration shall decide which of these requirements shall be applied to existing ships as defined in the present Convention.

(b) For the purpose of this Chapter:—

- (i) A new passenger ship is a passenger ship the keel of which is laid 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 on or 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 life-boat 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 is sufficient.

(e) In the case of passenger ships which are employed in the carriage of large numbers of unberthed passengers in special trades, such, for example, 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 on the following conditions:—

- (i) That the fullest provision which the circumstances of the trade will permit shall be made in the matter of construction.
- (ii) That steps shall be taken to formulate general rules which shall be applicable to the particular circumstances of these trades. Such rules shall be formulated in concert with such other Contracting Governments, if any, as may be directly interested in the carriage of such passengers in such trades.

Notwithstanding any provisions of the present Convention, the Simla Rules, 1931, shall continue in force as between the parties to those Rules until the rules formulated under sub-paragraph (e) (ii) of this Regulation shall come into force.

REGULATION 2

Definitions

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

- (a) (i) A *subdivision loadline* is a waterline used in determining the subdivision of the ship.
- (ii) The *deepest subdivision loadline* is the waterline 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 loadline.

- (c) is die *breedte van die skip* die totale breedte gemit vanaf die buitekant van een spant na die buitekant van sy oorkantse maat op of onder die boonste indelingslaslyn;
- (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 waterdige dwarsbeskotte opgetrek is;
- (f) is die *indompelingsgrenslyn* 'n lyn minstens 3 duim (of 76 millimeters) 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 waterdige 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 buitegewone 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 vlagskepe 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 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 3 duim (of 76 millimeters) 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 waterdigtheid van daardie gedeeltes van die beskotte wat bo die indompelingsgrenslyn en onmiddellik onder die hoër dek geleë is.

- (c) The *breadth of the ship* is the extreme width from outside of frame to outside of frame at or below the deepest subdivision loadline.
- (d) The *is the vertical distance from the moulded base line amidships to the subdivision loadline in question.*
- (e) The *is the uppermost deck up to which the transverse watertight bulkheads are carried.*
- (f) The *is a line drawn at least 3 inches (or 76 millimetres) below the upper surface of the bulkhead deck at side.*
- (g) The *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 *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) *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 *and *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 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 3 inches (or 76 millimetres) 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 relaxation in the watertightness of those portions of the bulkheads which are above the margin line and immediately under the higher deck.

REGULASIE 4

Deurdringbaarheid

(a) Die bepaalde veronderstelings 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:—

- die masjinerieruimte soos omskryf in regulasie 2 van hierdie hoofstuk;
- die gedeelte wat voor die masjinerieruimte geleë is; en
- 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 passasierruimtes, 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 dié wat deur die formule aangegee word, kan die uitvoerige berekende waarde gebruik word. Vir die doel van so 'n berekening moet die deurdringbaarheid van passasierruimtes, 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 passasierruimtes 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 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:

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

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—

- the machinery space as defined in Regulation 2 of the Chapter;
- the portion forward of the machinery space; and
- 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 machinery 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 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—

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

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 vragruijtes, steenkool- of oliebrandstofbunkers, voorraadkamers, bagasie- en poskamers, kettingkaste en varswater-tanks 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 vragruijtes nie gewoonlik deur aansienlike hoeveelhede vrag in beslag geneem word nie, moet geen deel van die vragruijtes 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 passasierruimtes 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 waterdige dwarsbeskotte passasier- of bemanningsruimte bevat, moet die hele afdeling, na aftrekking van enige ruimte wat volkome deur blywende staalbeskotte ingesluit en vir ander doeleindestoegevys is, as passasierruimte beskou word. Indien die betrokke passasier- of bemanningsruimte volkome binne blywende staalbeskotte ingesluit is, hoef slegs die aldus ingeslotte ruimte as passasierruimte 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 passasiervervoer 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 gevewe lengte ooreenkomsdig die aard van die diens waarvoor die skip bestem is. Dit moet op 'n reëlmataige wyse aanhoudend afneem—

- (i) na mate die skeepslengte toeneem, en
- (ii) van 'n faktor A, wat van toepassing is op skepe wat hoofsaaklik gebruik word vir die vervoer van vrag, tot 'n faktor B, wat van toepassing is op skepe wat hoofsaaklik gebruik word vir die vervoer van passasier.

Die wissellings 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 voet

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

L in meters

$$A = \frac{58.2}{L - 60} + \cdot 18 \quad (L = 131 \text{ en groter}) \dots\dots\dots (I)$$

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 space 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, 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 fo the ship as defined in Regulation 2 of this Chapter:—

L in feet

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

L in metres

$$A = \frac{58.2}{L - 60} + \cdot 18 \quad (L = 131 \text{ and upwards}) \dots\dots\dots (I)$$

Wanneer die faktor F kleiner is as .40 en 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 .40 te bove mag gaan nie.

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

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

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:—

(iii) *Die indeling, agter die voorpiek, van skepe korter as 430 voet (of 131 meters) maar nie korter as 260 voet (of 79 meters) nie en met 'n kriteriumsyster kleiner as S₁, en van alle skepe korter as 260 voet (of 79 meters), moet deur die faktor een bepaal word tensy tot tevredenheid van die Administrasie getoon word dat dit prakties on-uitvoerbaar 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 sekepe van enige lengte wat volgens hul sertifikate meer as 12 passasiers mag vervoer maar nie meer nie as—

$\frac{L^2}{7,000}$ (in voet) = $\frac{L^2}{650}$ (in meters) 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 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 voorpik bepaal word deur 'n faktor .50 of deur die faktor wat ooreenkomsdig paragrawe (c) en (d) van hierdie regulasie bereken is, indien dit minder is as .50.

(2) Waar die Administrasie in die geval van sulke skepe van korter as 300 voet (of 91.5 meters) 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 .50 bepaal word, moet die indelingstandaard, ongeag of die skip korter as 300 voet (91.5 meters) 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

Where the factor F is less than .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 .40.

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

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

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:—

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

(iii) *The subdivision abaft the forepeak* of ships less than 430 feet (or 131 metres) but not less than 260 feet (or 79 metres) in length and having a criterion numeral less than S, and of all ships less than 260 feet (or 79 metres) 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 sub-paragraph (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—

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

(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 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 .50 or by the factor determined according to paragraphs (c) and (d) of this Regulation, if less than .50.

(2) In the case of such ships less than 300 feet (or 91·5 metres) 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 300 feet (or 91.5 metres) 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 .50, the standard of subdivision to be applied shall be determined in accordance with the following sub-paragraphs (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

reëeling 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 125 kubieke voet (of 3.55 kubieke meters) beloop, watter ook al die grootste is, en vir passasiers sonder slaapbanke moet K 'n waarde hê van 125 kubieke voet (of 3.55 kubieke meters).
- (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 voet

$$BB = \frac{57.6}{L - 108} + .20 \quad (L = 180 \text{ en groter})$$

L in meters

$$BB = \frac{17.6}{L - 33} + .20 \quad (L = 55 \text{ en groter})$$

- (3) *Die indeling, agter die voorpiek, van skepe van 430 voet (of 131 meters) 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:—*

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

Indien die aldus verkreë faktor F minder is as .50, moet egter as faktor gebruik word of .50 of die faktor bereken ooreenkomsdig 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 430 voet (of 131 meters) maar nie korter as 180 voet (of 55 meters) nie en met 'n kriteriumsyfer gelyk aan S_1 , waar—*

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

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

moet bepaal word deur die faktor één; 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 die met 'n kriteriumsyfer van tussen S_1 en 123, deur die faktor F, wat met gebruikmaking van die volgende formule deur lineêre interpolasie tussen één 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 .50, kan die indeling egter bepaal word deur 'n faktor wat nie .50 te bove gaan nie.

- (5) *Die indeling, agter die voorpiek, van skepe korter as 430 voet (of 131 meters) maar nie korter as 180 voet (of 55 meters) nie en met 'n kriterium-*

the watertight 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 125 cubic feet (or 3.55 cubic metres), whichever is the greater, and for unberthed passengers K is to have the value 125 cubic feet (or 3.55 cubic metres).
- (2) The factor B in paragraph (b) of this Regulation shall be replaced by the factor BB determined by the following formula:—

L in feet

$$BB = \frac{57.6}{L - 108} + .20 \quad (L = 180 \text{ and upwards})$$

L in metres

$$BB = \frac{17.6}{L - 33} + .20 \quad (L = 55 \text{ and upwards})$$

- (3) *The subdivision abaft the forepeak of ships 430 feet (or 131 metres) 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 or more by the factor BB given by the formula in sub-paragraph (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:—*

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

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

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

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

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

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 sub-paragraph (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 .50 the subdivision may be governed by a factor not exceeding .50.

- (5) *The subdivision abaft the forepeak of ships less than 430 feet (or 131 metres) but not less than 180 feet (or 55 metres) in length and having a criterion*

syfer kleiner as S₁, en van alle skepe korter as 180 voet (of 55 meters) moet bepaal word deur die faktor één, tensy tot tevredenheid van die Administrasie getoon word dat in die geval van beondere 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 geregtig 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 waterdige 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 ooreenkoms, 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.

(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 verskilende indelingsfaktore het, moet die gesamentlike lengte van die twee afdelings na eweredigheid bepaal word.

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

(d) In 'n hoofwarsbeskot mag 'n nis voorkom mits alle dele van die nis binnewarts van vertikale oppervlakte 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 indelingsglaslyn.

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

numeral less than S₁ and of all ships less than 180 feet (or 55 metres) 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 bulkheads 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.

(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 330 feet (or 100 metres) 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 loadline.

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

- (i) die gesamentlike lengte van die twee afdelings wat deur die betrokke beskot geskei word, of 90 persent van die vulbare lengte of 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 .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 waaroer die verspringing strek, nie die toelaatbare lengte oorskry wat met 'n indempelingsgrenslyn 3 duim (of 76 millimeters) 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 10 voet (of 3.05 meters) plus 3 persent van die lengte van die skip, of 35 voet (of 10.67 meters), 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 bepaling van regulasie 5 van hierdie hoofstuk.

(h) Wanneer die hoof-dwarsskeepse waterdige afdeling plaaslik onderverdeel is en tot tevredenheid van die Administrasie bewys kan word dat, by veronderstelde kantbeskadiging oor 'n lengte van 10 voet (of 3.05 meters), plus 3 persent van die lengte van die skip, of 35 voet (of 10.67 meters), 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 .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 .50 of kleiner maar groter as .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 .33 of kleiner is, moet die stabiliteit in die onbeskadigde toestand voldoende wees om die oorstroming van enige drie aangrensende hoofafdelings te kan weerstaan.

(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 .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 3 inches (or 76 millimetres) 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 10 feet (or 3.05 metres) plus 3 per cent of the length of the ship, or 35 feet (or 10.67 metres) 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 assumed side damage extending over a length of 10 feet (or 3.05 metres) plus 3 per cent of the length of the ship, or 35 feet (or 10.67 metres) 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 .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 sub-paragraph (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 .50 or less but more than .33 intact stability shall be adequate to withstand the flooding of any two adjacent main compartments.

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

(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 veronderstel word dat die skip met betrekking tot stabilitet in die slegste verwagte dienstoestand verkeer.

(ii) Wanneer die bedoeling is om dekke, binnehuise of langskeepse beskotte van voldoende digtheid aan te bring ten einde die vloeい van die water in 'n ernstige mate te beperk, moet die Administrasie die sekerheid hē dat by die berekenings voldoende aandag aan sulke beperkings geskenk word.

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

(c) Vir die berekening van stabilitet in geval van beskadiging geld oor die algemeen die volgende volume- en oppervlakte-deurdringbaarhede:—

<i>Ruimtes.</i>	<i>Deurdringbaarheid.</i>
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 stregste vereistes tot gevolg het.

Groter oppervlakte-deurdringbaarhede moet veronderstel word ten opsigte van ruimtes wat, in die nabijheid 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*: 10 voet (of 3.05 meters) plus 3 persent van die lengte van die skip, of 35 voet (of 10.67 meters), watter syfer ook al die kleinste is. Waar die vereiste indelingsfaktor .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 hē, 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 slagsyhoek 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 bokant die beskotdek vandaan bedien 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. Gesikte inligting betreffende die gebruik van inrigtings vir dwarsskeepsoorstroming moet aan die gesagvoerder van die skip verstrek word.

(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:

<i>Spaces</i>	<i>Permeability</i>
Appropriated to Cargo, Coal or Stores ...	60
Occupied by Accommodation ...	95
Occupied by Machinery ...	85
Intended for Liquids ...	0 or 95*

*Whichever results in the more severe requirements.

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*: 10 feet (or 3.05 metres) plus 3 per cent of the length of the ship, or 35 feet (or 10.67 metres) whichever is the less. Where the required factor of subdivision is .33 or less the assumed longitudinal extent of damage shall be increased as necessary so as 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 sub-paragraphs (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 equalisation shall be acceptable to the Administration.

Where cross-flooding fittings are required the time for equalisation shall not exceed 15 minutes. Suitable information concerning the use of cross-flooding fittings shall be supplied to the master of the ship.

(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 as volg wees—

- (i) in die geval van simmetriese oorstroming moet daar 'n positiewe oorblywende metasentriese hoogte van minstens 2 duim (of 0.05 meters) 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 vyftien grade te bove mag gaan nie;
- (iii) in geen geval mag die indompelingsgrenslyn in die finale stadium van die oorstroming onder die water wees nie. Indien 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.

(g) Die gesagvoerder van die skip moet voorsien word van die nodige gegevens 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 dwarsskeeps-oorstroming by beskadiging nodig is, moet die gesagvoerder van die skip in kennis gestel word van die stabiliteitstoestande waarop die slagsyberekeninge 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 vereistes te voldoen, vir die beoogde diens buitensporig is.

(ii) Verslappings van die vereistes vir skadestabiliteit mag slegs toegelaat word in buitegewone 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 onder die bepaalde omstandighede prakties uitvoerbaar en redelik is.

REGULASIE 8

Inlaai van ballas

Wanneer water vir ballasdoeleindes ingelaai word, moet die waterballas in die algemeen nie vervoer word in tanks wat vir oliebrandstof bedoel is nie. In skepe waar dit prakties onuitvoerbaar is om te voorkom dat water in oliebrandstoffanks 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 masjienuimtebeskotte, 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 10 voet (of 3.05 meters) 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

(f) The final conditions of the ship after damage and, in the case of unsymmetrical flooding, after equalisation 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 2 inches (or 0.05 metres) 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.

(g) The master of the ship shall 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, &c.

(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 10 feet (or 3.05 metres) 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

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 masjinerie-ruimte, soos omskryf in regulasie 2 van hierdie hoofstuk, van die vrag- en passasierruimtes voor en agter skei, moet ook aangebring en tot by die beskotdek waterdig gemaak word. Die agterpiekbeskot mag 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 waterdigt ruimtes van middelmatige volume ingesluit wees. Die skroefaswerkbus moet geplaas wees in 'n waterdigt astunnel of 'n ander waterdigt 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 165 voet (of 50 meters) en korter as 200 voet (of 61 meters) moet 'n dubbele boom minstens vanaf die masjinierieruimte tot by die voorpiekbeskot of so naby daarvan as doenlik aangebring word.
- (ii) In skepe van 200 voet (of 61 meters) en korter as 249 voet (of 76 meters) moet 'n dubbele boom minstens buite die masjinierieruimte aangebring word en dié moet tot by die voor- en agterpiekbeskotte of tot so naby daarvan as doenlik strek.
- (iii) In skepe van 249 voet (of 76 meters) en langer moet 'n dubbele boom midskeeps aangebring word en dié moet tot by die voor- en agterpiekbeskotte of tot so naby daarvan so 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 horizontale vlak wat loop deur die snypunkt 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, ens., 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 18 duim (of 457 millimeters) nie, en die put mag ook nie laer wees as die horizontale 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 agterent van die astunnel van skrofskepe. Ander putte (b.v. vir smeeralie onder die hoofmasjiene) kan deur die Administrasie toegelaat word indien hy daarvan oortuig is dat die inrigtings beskerming verleen wat ooreenkoms 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 waterdigt 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.

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 aft, shall also be fitted and made watertight up to the bulkhead deck. The afterpeak bulkhead may, however, be stopped 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 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 165 feet (or 50 metres) and under 200 feet (or 61 metres) 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 200 feet (or 61 metres) and under 249 feet (or 76 metres) 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 249 feet (or 76 metres) 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, &c., shall not extend downwards more than necessary. The depth of the well shall in no case be more than the depth less 18 inches (or 457 millimetres) 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 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 gereeld diens gebruik word, kan die Administrasie toelaat dat daar afgesien word van 'n dubbele boom in enige deel van die skip wat ingedeel is deur middel van 'n faktor van hoogstens .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 aan hom een of meer addisionele laslyne 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, ens., 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 ooreenkomsdig 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 Passasierskipveiligheid sertifikaat aangegee word.

(e) In geen geval mag 'n indelingslaslynmerk aangebring word bo die hoogste laslyn in sout water 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 gelai word dat die laslynmerk wat pas by die jaargety en die vaargebied, soos bepaal ooreenkomsdig die Internasionale Laslynkonvensie wat van krag is, onder die water is nie.

(g) 'n Skip mag in geen geval so gelai word dat wanneer hy in sout water 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 langskeeps moet so gebou word dat hy binne redelike perke teen die drukking veroorsaak deur die maksimum waterkolom wat hy sal moet verduur 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 cement, waterdig gemaak word.

(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 part of the ship which is subdivided by a factor not exceeding .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 Loadlines

(a) In order that the required degree of subdivision shall be maintained, a loadline 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 loadlines assigned and marked to correspond with the subdivision draughts which the Administration may approve for the alternative service conditions.

(b) The subdivision loadlines 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 loadlines 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 loadline 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 loadline mark be placed above the deepest loadline 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 loadline marks, a ship shall in no case be loaded so as to submerge the loadline 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 loadline 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.

(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 spuitslang-toets verpligtend; hierdie toets moet uitgevoer word wanneer die uitrusting van die skip die mees gevorderde stadium bereik het. 'n Deeglike inspeksie van die waterdigt beskotte moet in elk geval uitgevoer word.

(d) Die voorpiek, dubbele bome (met inbegrip van kokerkiele) en binnehuiden 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 bevatten 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 3 voet (of 0.92 meters) 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 doeleinades 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 waterdigt beskotte

(a) Die getal openings in waterdigt 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 waterdigt 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 pyleidingstelsel nie, word nie in waterdigt indelingsbeskotte toegelaat nie.

(iii) Lood of ander materiaal wat gevoelig is vir hitte, moet nie gebruik word in stelsels wat deur waterdigt indelingsbeskotte loop waar verswakking van sodanige stelsels in die geval van brand die waterdigt 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 waterdigt dwarsbeskotte wat 'n vrugruimte van 'n aangrensende vrugruimte of van 'n permanente of reserwebunker skei, behalwe soos in paragraaf (l) van hierdie regulasie bepaal.

(ii) Behalwe soos in subparagraph (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 klepkes moet in die voorpiek teen die aanvaringsbeskot bevestig wees.

(iii) Indien die voorpiek verdeel is om twee verskillende soorte vloeistowwe te hou, kan die Administrasie toelaat dat deur die aanvaringsbeskot onder die indom-

(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 loadline 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 3 feet (or 0.92 metres) 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 (l) 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.

(iii) If the forepeak is divided to hold two different kinds of liquids the Administration may allow the collision bulkhead to be pierced below the margin line by two pipes,

pelingsgrenslyn 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) Waterdige deur 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 skermes of andersins getref word om te verhoed dat die steenkool die sluiting van waterdige 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 tunnelruimtes wees waar twee skroefasse aangebring word en slegs twee deure waar daar meer as twee skroefasse is. Al hierdie deure moet van die skuiftype wees en moet so geleë wees dat die drempels so hoog as moontlik is. Die handinrigting 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) Waterdige 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 waterdige 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 waterdige 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 waterdige deure moet 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 waterdige deure, van watter klas ook al, nie so aangebring is dat hy vanaf 'n sentrale beheerpunt gesluit kan word nie, moet hy toegerus word met 'n meganiese, elektriese, telefoniese of ander gesikte regstreekse kommunikasiemiddel, wat dit vir die offisier van die wag moontlik maak om gou in aanraking te kom met die persoon wat kragtens vorige bevels daarvoor verantwoordelik is om die betrokke deur te sluit.

(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 horizontale 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. Afwy-

each of which is fitted as required by sub-paragraph (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 sub-paragraph (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.

(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

kings van die vereiste ten opsigte van bediening van weerskante kan toegelaat word indien die nakoming van hierdie vereiste 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) Skuifdeure met kragaandrywing (Klas 3) kan vir vertikale of horizontale 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 tot dat 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, d.w.s. sluit, oopmaak en sluit. Die vloeistof wat gebruik word, moet sulks wees dat dit nie sal vries by enige van die temperature wat die skip straks gedurende sy diens sal teenkom nie.

(j) (i) Waterdige 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 7 voet (of 2.13 meters) bo die boonste indelingslaslyn lê.

(ii) Waterdige deure met drempels bo die boonste laslyn en onder die lyn wat in die voorafgaande subparaaf gespesifieer word, moet skuifdeure wees en kan van die handbediende (Klas 2) wees, behalwe in vaartuie wat kort internasionale reise onderneem en 'n indelingsfaktor van .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 waterdige hoofindelingsbeskot loop, moet die deure by sulke openings kragaandrywing hê.

(k) (i) Waterdige deure wat soms op see oopgemaak mag 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

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 7 feet (or 2.13 metres) above the deepest subdivision loadline.

(ii) Watertight doors, the sills of which are above the deepest loadline and below the line specified in the preceding sub-paragraph 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 .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 loadline 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

- 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 tremming 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 vragsuifdeure 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 voorname is om sulke deure aan te bring, moet die getal en inrigtings spesiaal deur die Administrasie oorweeg word.
- (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 verwijder word nie behalwe wanneer dit gebiedend noodsaaklik is. Wanneer hulle teruggeplaas word, moet die nodige voorsorgsmaatreëls getref word om te verseker dat die nate waterdig is.
- (n) Alle waterdigte deure moet gedurende die vaart toegehou word behalwe wanneer hulle noodsaaklike wyls 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 pyleidings, 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 indompeningsgrenslyn te verseker. Toegang tot die ander uit-

- 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 loadline.
 (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 unauthorised opening. When it is proposed to fit such doors, the number and arrangements shall receive the special consideration of the Administration.
- (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

einde 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 voorname 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 indomplingsgrenslyn

(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 tevreden 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 $2\frac{1}{2}$ 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 indomplingsgrenslyn geleë is, behalwe dié wat ooreenkomsdig 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 $4\frac{1}{2}$ voet (of 1.37 meters) plus $2\frac{1}{2}$ persent van die breedte van die skip bo die water wanneer die skip 'n hawe verlaat, moet al die patryspoorte in daardie tussendek waterdig toegevoeg 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 spelling vir soetwater, indien nodig, toegelaat word.

(2) Die tyd waarop hierdie patryspoorte in die hawe oopgemaak word, asook die tyd waarop hulle toegevoeg 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 $4\frac{1}{2}$ voet (of 1.37 meters) plus $2\frac{1}{2}$ persent van die breedte van die skip bo die waterlyn wat ooreenkomsdig 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 1 voet (of 0.305 meters) vergroot word.

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

(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 $2\frac{1}{2}$ 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 sub-paragraph (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 sub-paragraph (ii) of this paragraph are below a line drawn parallel to the bulkhead deck at side and having its lowest point $4\frac{1}{2}$ feet (or 1.37 metres) plus $2\frac{1}{2}$ per cent of the breadth of the ship above the water when the ship departs from any port, all the sidescuttles in that between 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 sub-paragraph 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 loadline, 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 $4\frac{1}{2}$ feet (or 1.37 metres) plus $2\frac{1}{2}$ per cent of the breadth of the ship above the waterline 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 1 foot (or 0.305 metres).

(d) Doeltreffende geskarnierde binneluike wat so inge-
rig is dat hulle maklik en doeltreffend toe- en waterdig
gemaak kan word, moet aangebring word by alle patrys-
poorte, maar agter een agste van die skeepslengte vanaf
die voorste loodlyn en bokant 'n lyn wat ewewydig ge-
trek is met die beskotdek op die skeepsboord en waarvan
die laagste punt 12 voet (of 3.66 meters) plus 2½ persent
van die breedte van die skip bo die hoogste indelingslas-
lyn geleë is, kan die luke in die akkommodasie van
ander passasiers as tussendekse passasiers verplaasbaar
wees tensy die Internasionale Laslynkonvensie wat van
krag is, bepaal dat die luke blywend op hul regte plekke
bevestig moet wees. Sulke verplaasbare luke moet gebere
word in die onmiddellike nabyheid van die patryspoorte
waarvoor hule bedoel is.

(e) Patryspoorte en hul luke 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 steen-
kool 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 per-
sone doeltreffend verhinder word om hulle of hul luke
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 luke waterdig toegemaak en ges-
sluit 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 aange-
bring word nie.

(h) Die getal spuigate, sanitêre uitlate en ander soort-
gelyke openings in die huidbeplating moet tot 'n minimum
vermindert word of deur elke uitlaat vir soveel sanitêre en
ander pype as moontlik te gebruik of op 'n ander be-
vredigende wyse.

(i) (i) Alle inlate en uitlate in die huidbeplating moet
toegerus word met 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 huid-
kleppe in inlate of uitlate aangebring is nie, of vir 'n
ander doel waar die verswakking van sulke pype in die
geval van brand die gevare van oorstroming kan laat ont-
staan nie.

(ii) (1) Behalwe soos in subparagraaf (iii) van hierdie
paragraaf bepaal, moet elke afsonderlike uitlaat wat van-
af ruimtes onder die indompelingsgrenslyn deur die huid-
beplating loop, toegerus wees met of een outomatiese
terugslagklep met 'n positiewe middel om hom bo die
beskotdek vandaan af te sluit, of, 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 aan-
gebring 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 geredelik toeganklike
krane of kleppe tussen die pype en huidbeplating of tussen
die pype en gefabriseerde kaste wat aan die huidbeplating
bevestig is.

(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
aboard 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 12 feet (or 3.66 metres) plus 2½ per cent of the
breadth of the ship above the deepest subdivision load-
line, the deadlights may be portable in passenger accom-
modation other than that for steerage passengers, unless
the deadlights are required by the International Conven-
tion respecting Load Lines in force to be permanently
attached in their proper positions. Such portable dead-
lights shall be stowed adjacent to the sidescuttles they
serve.

(e) Sidescuttles 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 appro-
priated 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 with-
out 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.

(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 sub-paragraph (iii) of this
paragraph, each separate discharge led through the shell
plating from spaces below the margin line shall be pro-
vided either with one automatic non-return valve fitted
with a positive means of closing it from above the bulk-
head deck, or, alternatively, with two automatic non-return
valves without such means, the upper of which is so
situated above the deepest subdivision loadline as to be
always accessible for examination under service condi-
tions, 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) 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 onder geen omstandighede so aangebring word dat hul laagste punt onderkant die boonste indelingslaslyn geleë sal wees nie.

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

(ii) Indien die binneboordse opening onder die indompelingsgrenslyn geleë is, moet die deksel waterdig wees en moet 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 waterdige deure, patryspoorte, ens.

(a) (i) Die ontwerp, materiaal en konstruksie van alle waterdige 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 waterdige deure mag geen groewe aan die onderkant hé 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 ander goedgekeurde rekbare materiaal vervaardig wees. Gewone gietyster of soortgelyke materiaal mag nie gebruik word nie.

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

REGULASIE 16

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

(a) Waterdige dekke, kokers, tonnels, kokerkiele en lugskagte moet net so sterk wees as waterdige 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. Waterdige ventilators en kokers moet minstens tot by die beskotdek strek.

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

REGULASIE 17

Waterdigtheid bo die indompelingsgrenslyn

(a) Die Administrasie kan eis dat alle redelike en praktiese 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 waterdige beskotte en webbe op die beskotdek aangebring word, bo of in die onmiddellike nabyheid van hoofindelingsbeskotte, moet hulle toegerus word met waterdige huid- en beskotdekverbindings sodat die stroming van water oor die dek be-

(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 loadline.

(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 loadline. 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 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 a heeled

perk kan word wanneer die skip in 'n beskadigde slagsy toestand verkeer. Wanneer die gedeeltelike waterdigtie 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 weerdeg wees in die sin dat daar nie onder normale see-toestande water ondertoe sal binnekomm nie. Alle openings in die vryliggende weerdek moet hoog en sterk genoeg luukhoofde hê en toegerus wees met doeltreffende middels om hulle vinnig weerdeg toe te maak. Waterafvoerpoorte, oop relings en/of spuiyppe moet na gelang nodig aangebring word om onder alle weersomstandighede water vinnig van die weerdek te verwijder.

(c) Patrysspoorte, loopplank-, vrag- en steenkoolpoorte en ander middels vir die sluiting van openings in die skeepsboord bo die indompelingsgrenslyn moet van deuglike 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 patrysspoorte van ruimtes onder die eerste dek bo die beskotdek.

REGULASIE 18

Lenspompinstallings in passasierskepe

(a) Elke skip moet toegerus word met 'n doeltreffende lenspompinstallasie wat in staat is om enige waterdigtie afdeling wat nòg 'n permanente olie-afdeling nòg 'n permanente waterafdeling is, onder alle omstandighede wat in die praktyk na 'n ongeval voorkom en hetys 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 buitegewone vorm kan addisionele suigleidings vereis word. Maatreëls moet getref word sodat water in die afdeling sy weg na die suigyppe 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 ooreenkomsdig die voorwaardes gestel in paraaf (b) van regulasie 7 van hierdie hoofstuk toon dat die veiligheid van die skip nie daardeur benadeel sal word nie. Doeltreffende middelle 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
Hoofmasjienvlamp (kan vervang word deur een onafhanklike pump)	1	1
Onafhanklike pompe	2	3

(iii) Sanitäre, ballast- en algemene dienspompe kan aanvaar word as onafhanklike kraglenspompe mits hulle toegerus is met die nodige aansluitings by die lenspompsysteem.

(c) Wanneer dit prakties uitvoerbaar is, moet die kraglenspompe geplaas word in afsonderlike waterdigtie afdelings wat so ingerig of geleë is dat hulle nie maklik as

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 loadline.

(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 pumping 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 ship is upright or listed. For this purpose wing suction will generally be necessary except in narrow compartments at the ends of the ship, where one suction may be sufficient. 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 summarised 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

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 300 voet (of 91.5 meters) of langer of met 'n kriteriumsiffer van 30 of groter moet die reëlings sodanig wees dat daar minstens een kragpomp beskikbaar is vir gebruik onder 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 weestaan, minstens een pomp in 'n onbeskadigde afdeling beskikbaar sal wees.

(e) Met uitsondering van addisionele pompe wat slegs vir piekafdelings aangebring mag 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 met 'n snelheid van minstens 400 voet (of 122 meters) 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 aan bakboord en een aan stuurboord wees. Die Administrasie kan eis dat onafhanklike kraglenspompe in ander ruimtes afsonderlike regstreekse suigleidings het. 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 suigpomp 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 sir-

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 300 feet (or 91.5 metres) 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 (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 400 feet (or 122 metres) 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 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

kulasiepomp-uitlaatleiding aangebring word vanaf enige sirkulasiepomp wat ooreenkomsdig subparagraaf (i) van hierdie paragraaf gebruik word.

(h) (i) Alle pype vanaf die pompe wat vir die dreining 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 brandstofbewaartens of in ketel- of masjinerieruimtes, met inbegrip van ruimtes waarin oliebesinktens of oliebrandstofpompeenhede geleë is, moet van staal of ander goedgekeurde materiaal wees.

(i) Die deursnee van die hooflensleiding moet ooreenkomsdig 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:

$$d = \sqrt{\frac{L(B+D)}{2,500}} + 1$$

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;

of

$$d = 1.68 \sqrt{L(B+D)} + 25$$

waar d = binnedeursnee van die hooflensleiding in millimeters

L = lengte van skip in meters

B = breedte van skip in meters

D = holte van skip tot by die beskotdek, in meters.

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 binnekomb 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 leeggelpomp word wanneer hy waterballas bevat.

(k) Maatreëls moet getref word om te voorkom dat 'n afdeling wat deur 'n lenssuigpyp bedien word, oorstroming 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 midellyn op die hoogte van die boonste indelingslaslyn) of in 'n kokerkiel geleë is, moet 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 pypeleidingstelsel 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 nood-lenspompstelsel verskaf word, moet dié onafhanklik van

circulating pump used in compliance with sub-paragraph (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:

$$d = \sqrt{\frac{L(B+D)}{2,500}} + 1$$

where d=internal diameter of the bilge main in inches

L=length of ship in feet

B=breadth of ship in feet

D=moulded depth of ship to bulkhead deck in feet;

or

$$d = 1.68 \sqrt{L(B+D)} + 25$$

where d=internal diameter of the bilge main in millimetres

L=length of ship in metres

B=breadth of ship in metres

D=moulded depth of ship to bulkhead deck in metres.

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 cap-

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 (l) van hierdie regulasie melding gemaak word en wat bo die beskotdek vandaan 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 prosesse akkurate aanduiding te kry van die stabilitet van die skip onder wisselende dienstoestande, en 'n afskrif moet aan die Administrasie verskaf word.

(b) Wanneer aan die skip veranderinge 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 gegegewens vir dergelike skepe duidelik toon dat daar weens die skip se afmetings en inrigtings meer as genoeg metacentriese hoogte onder 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. Daarbenedienens moet boekies met bogenoemde gegegewens 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) Driloeferinge vir die bediening van waterdigte deure, patryspoorte, kleppe en sluitingsinrigtings van spui-pype, 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.

able 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 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 indicate 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, side-scuttles, 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) Die waterdige deure en alle meganismes en standaanwysers wat daarvan 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 beskading, 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.

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 driloeferinge 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 vragsskepe)

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) Vragsskepe moet aan die bepalings van regulasies 26, 27, 28, 29, 30 en 33 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 hoofopwerkstelle. Die krag van hierdie stelle moet sodanig wees dat wanneer een van hierdie opwerkstelle 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 hoofopwerkstasie is, moet die hoofskakelbord in dieselfde hoofbrandsone geleë wees. Wanneer daar meer as een hoofopwerkstasie is, is dit toelaatbaar om slegs een hoofskakelbord te hê.

(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.

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 33 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.

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 tot tevredenheid van die Administrasie verseker word dat 'n brand of ander ongeval in die masjinerieruimte soos in paragraaf (h) van regulasie 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 (f) van regulasie 35 van hierdie hoofstuk 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 aansitnrigtings; die brandstof wat gebruik word, moet 'n ontvlammingspunt hê van minstens 110° F. (of 43° C.); of
(ii) 'n akkumulator wat in staat is om die noodlading te dra sonder dat hy weer gelaaï hoof 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 waterdige 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 waterdige deure, oop of toe is; en
- (4) om die geluidseine (indien hulle met elektrisiteit werk) te bedien wat waarskuwing gee dat kragaangedrewe waterdige deure besig is om toe te gaan.

Die reëlings moet sodanig wees dat die tydelike noodkragbron outomatis in werking kom as die hoofelektrisiteitsbron onklaar raak.

(ii) Wanneer die noodkragbron 'n akkumulatorbattery is, moet reëlings getref word om te verseker dat die noodverligtingsbron outomatis 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 ooreenkomsdig hierdie regulasie aangebring is, besig is om af te loop.

(f) (i) Die noodsakelbord moet geïnstalleer word so na aan die noodkragbron as wat prakties uitvoerbaar is.

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 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 (f) of Regulation 35 of this Chapter, 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 flash point of not less than 110°F. (or 43°C.); 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 door 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) 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.

(iii) Geen akkumulatorbattery wat ooreenkomsdig 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 $22\frac{1}{2}$ 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 vlagskepe

(a) Vlagskepe van 5,000 ton bruto tonnemaaat en meer

(i) In vlagskepe van 5,000 ton bruto tonnemaaat 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 die 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 hoofopwerkstelruimte, 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 6 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 moet 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 aansuinrigtings wat die Administrasie tevreden stel; die brandstof wat gebruik word, moet 'n ontvlammingspunt hê van minstens 110°F . (of 43°C).

(iv) Die reëlings moet sodanig wees dat die volledige noodinstallasie sal funksioneer wanneer die skip 'n helling van $22\frac{1}{2}$ 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) Vlagskepe van minder as 5,000 ton bruto tonnemaaat

(i) In vlagskepe van minder as 5,000 ton bruto tonnemaaat, moet daar 'n selfstandige noodkragbron wees en dié moet tot tevredenheid van die Administrasie geleë en in staat wees om by die tewaterlatingspunte en stowingsposisies van reddingsvaartuie die lig te verskaf wat in subparagrawe (a) (ii), (b) (ii), en (b) (iii) van regulasie

(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.

(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 $22\frac{1}{2}$ 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 6 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 flash point of not less than 110°F . (or 43°C).

(iv) Arrangements shall be such that the complete emergency installation will function when the ship is inclined $22\frac{1}{2}$ 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

(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 sub-paragraphs (a) (ii), (b) (ii) and (b) (iii) of Regulation

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 3 uur.

(iii) Hierdie skepe is ook onderworpe aan subparagrafe (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 gaeaard word; voorts moet alle elektriese apparate so gebou en so geïnstalleer word dat daar by die gewone hantering geen gevaaer van besering sal wees nie.

(2) Metaalrame van alle draagbare elektriese lampes, gereedskap en soortgelyke apparate wat as skeepsuitrusting voorsien word en 'n hoër taksasie het as die veiligheidsspanning wat deur die Administrasie voorgeskryf moet word, moet deur middel van 'n gesikte geleier gaeaard word, tensy gelykstaande voorsienings gemaak word soos deur dubbele isolering of deur 'n afsondertransformator. Die Administrasie kan addisionele spesiale voorsorgmaatreëls vereis vir elektriese lampes, gereedskap of soortgelyke apparaat vir gebruik in klam ruimtes.

(ii) Hoof- en nooddskakelborde moet so ingerig word dat hulle van agter en voor maklik toeganklik is sonder gevaaer vir die bedieners. Die sye en agterkante en, waar nodig, die voorkante van skakelborde, moet op gesikte wyse beskerm word. Waar nodig moet daar nie geleidende matte of roosters voor en agter wees. Blootgestelde stroomdraende dele met gaeaarde 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 gaeaard 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 verhoed en ook om te verhinder dat omringende materiaal oorverhit word.

(vi) Draade moet op so 'n wyse ondersteun word dat hulle nie kan skaaf of anders beskadig kan word nie.

(vii) Elke afsonderlike stroombaan moet teen kortsluiting 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 stroomdravermoe 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.

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 3 hours.

(iii) These ships shall also be subject to sub-paragraphs (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.

(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) Accumulator batteries shall be suitably housed, and compartments used primarily for their accommodation shall be properly constructed and efficiently ventilated.

(b) *Slegs passasierskepe*

(i) Verdeelstelsels moet so ingerig wees dat 'n brand in enige hoofbrandsone nie die noodsaklike 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 sover 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 geen elektriese uitrusting geïnstalleer word nie tensy dit van 'n tipe is wat nie die betrokke mengsel aan die brand sal steek nie, bv. vlamdigte (ploffrye) 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, mag 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.

(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 (ploffry) 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.

(b) *Slegs passasierskepe*

Tydens die eerste ondersoek moet gedemonstreer word in watter mate die masjinerie die vermoë besit om die stootinrigting van die skroef onder normale manevreertoestande betyds om te keer en sodoende die skip tot stilstand te bring vanaf die maksimum dienssnellheid 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 dienssnellheid te stuur. Die hoofstuurinrigting en roerkoning moet so ontwerp wees dat hulle nie beskadig sal word as met volle krag agtertoe gevaa 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) *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.

(c) *Cargo Ships only*

Devices liable to arc shall not be installed in any compartment assigned principally to accumulator 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.

(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) 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 9 duim (of 22.86 sentimeters) sou vereis op die plek waar die roerpen aangebring is.

(iii) Wanneer die hoofstuurinrigtingskrageenhede en hul verbinding in tweevoud tot tevredenheid van die Administrasie aangebring word, en elke krageenhedie stuurinrigting in staat stel om aan die vereistes van subparagraaf (i) van hierdie paragraaf te voldoen, hoef geen hulpstuurinrigting vereis te word nie.

(iv) Wanneer die Administrasie 'n roerkoning met 'n deursnee van meer as 9 duim (of 22.86 sentimeters) 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 stuurpos 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 14 duim (of 35.56 sentimeters) sou vereis op die plek waar die roerpen aangebring is.

(ii) Wanneer stuurinrigtingeenhede met kragbediening en hul verbinding 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 verbinding, 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 gesikte 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 nooddakelbord 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 stuurinrigtinskamer 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.

(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 9 inches (or 22.86 centimetres) 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 sub-paragraph (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 9 inches (or 22.86 centimetres) 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 14 inches (or 35.56 centimetres) diameter in way of the tiller.

(ii) Where power operated steering gear units and connections are fitted in duplicate to the satisfaction of the Administration, and each unit complies with sub-paragraph (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 sub-paragraph (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) *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 subparagrafe (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 beskermingsregulasies.

(ii) Slegs beskerming teen kortsluitings moet verskaf word vir motore en kragstroombane van hoofstuurinrigtings wat elektries of elektrohidroulies bedien word.

REGULASIE 31

Oliebrandstof wat in passasier-skepe gebruik word.

Geen binnebrandmasjien mag vir 'n vaste installasie in 'n passasier-skip gebruik word indien die brandstof wat gebruik word, 'n ontvlammingspunt van 110° F. (of 43° C.) of minder het nie.

REGULASIE 32

Posisie van noodinstallasies in passasier-skepe

Die noodelektrisiteitskragbron, noobrandpompe, nood-lenspompe, batterye van kooldioksiedbottels vir brandblusdoeleindes en ander noodinstallasies wat noodsaaiklik is vir die veiligheid van die skip, mag nie in 'n passasier-skip voor die aanvaringsbeskot aangebring word nie.

REGULASIE 33

Verbinding tussen die brug en masjienvamer

Skepe moet toegerus wees met twee middele om bevele vanaf die brug na die masjienvamer oor te stuur. Een middel moet 'n masjienvamertelegraaf wees.

DEEL D—BESKERMING TEEN BRAND

(In deel D is regulasies 34 tot 52 van toepassing op passasier-skepe wat meer as 36 passasiers vervoer, is regulasies 35 en 53 van toepassing op passasier-skepe wat hoogstens 36 passasiers vervoer, en is regulasies 35 en 54 van toepassing op vragskepe van 4,000 ton bruto tonnemaat en meer.)

REGULASIE 34

Algemeen

(a) Die doel van hierdie deel is om die hoogs moontlike mate van beskerming teen brand te vereis deur die reëeling van besonderhede van die inrigting en konstruksie. Die drie basiese beginsels wat hierdie regulasies ten grondslag lê, is—

- (i) skeiding van die akkommodasieruimtes van die res van die skip deur termiese- en bougrense;
- (ii) inperking, blussing of opsporing van 'n brand in die ruimte waar dit ontstaan;
- (iii) beskerming van die nooduitgange.

(b) Die romp, bobou en dekhuse moet deur middel van beskotte van klas A (soos in paragraaf (c) van regulasie 35 van hierdie hoofstuk beskryf) in vertikale hoofsones verdeel word en moet verder onderverdeel word deur middel van soortgelyke beskotte wat die grense vorm wat beskerming bied aan ruimtes wat vertikale toegang verleen asook die grense wat die akkommodasieruimtes skei van die masjienerie-, vrag- en diensruimtes en ander. Benewens en ter aanvulling van die rondedienstselsels, alarmstelsels en brandblusapparate wat by deel E van

(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 sub-paragraphs (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, sub-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

Oil Fuel used in Passenger Ships

No internal combustion engine shall be used for any fixed installation in a passenger ship if its fuel has a flash point of 110° F. (or 43° C.) or less.

REGULATION 32

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 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.

REGULATION 33

Communication between Bridge and Engine Room

Ships shall be fitted with two means of communicating orders from the bridge to the engine room. One means shall be an engine room telegraph.

PART D.—FIRE PROTECTION

(In Part D, Regulations 34 to 52 apply to passenger ships carrying more than 36 passengers; Regulations 35 and 53 apply to passenger ships carrying not more than 36 passengers; Regulations 35 and 54 apply to cargo ships of 4,000 tons gross tonnage and upwards.)

REGULATION 34

General

(a) The purpose of this Part is to require the fullest practicable degree of protection from fire by regulation of the details of arrangement and construction. The three basic principles underlying these regulations are—

- (i) separation of the accommodation spaces from the remainder of the ship by thermal and structural boundaries;
- (ii) containment, extinction, or detection of any fire in the space of origin;
- (iii) protection of means of escape.

(b) The hull, superstructure and deck houses shall be divided into main vertical zones by "A" Class bulkheads (as described in paragraph (c) of Regulation 35 of this Chapter) and further divided by similar bulkheads forming the boundaries protecting spaces which provide vertical access and the boundaries separating the accommodation spaces from the machinery, cargo and service spaces and others. In addition, and supplementary to the patrol systems, alarm systems and fire extinguishing apparatus required by Part E of this Chapter, either of the follow-

hierdie hoofstuk vereis word, moet die een of die ander van die volgende beskermingsmetodes, of 'n kombinasie van hierdie metodes waarmee die Administrasie tevreden is, in akkommadasie- en diensruimtes aangewend word met die oog op voorkoming van die verspreiding van beginbrande vanaf die ruimtes waarin hulle ontstaan:—

Metode I.—Die bou van inwendige verdelingsbeskotte van klas B (soos in paragraaf (d) van regulasie 35 van hierdie hoofstuk omskryf) in die algemeen sonder die installering van 'n verklik- of sproeierstelsel in die akkommadasie- en diensruimtes; of

Metode II.—die aanbring van 'n outomatiese sproeieren brandalarmstelsel vir die ontdekking en blussing van brand in alle ruimtes waarin die ontstaan van 'n brand verwag kan word, in die algemeen sonder enige beperking op die tipe inwendige verdelingsbeskotte in ruimtes wat aldus beskerm word; of

Metode III.—'n stelsel van onderverdeling binne elke vertikale hoofzone met gebruikmaking van verdelings van klasse A en B wat versprei word volgens die belangrikheid, grootte en aard van die verskillende afdelings, met 'n outomatiese brandverklikstelsel in alle ruimtes waarin die ontstaan van 'n brand verwag kan word, en met beperkte gebruik van brandbare en hoogs ontvlambare materiale en meubelstowwe; maar in die algemeen sonder die installering van 'n sproeierstelsel.

Waar toepaslik, dui die hoofde of subhoofde van die regulasies van hierdie deel van hierdie hoofstuk die Metode of Metodes wat die regulasie 'n vereiste maak.

REGULASIE 35

Definisies

Oral waar die uitdrukings wat hieronder omskryf word, in hierdie deel van hierdie hoofstuk voorkom, moet onderstaande vertolkings aan hulle geheg word:—

(a) *Onbrandbare materiaal* beteken 'n materiaal wat nie brand of ontvlambare damppe in genoegsame hoeveelheid afgee om by 'n proefvlam te ontvlam wanneer dit tot ongeveer $1,382^{\circ}\text{F}$ (of 750°C) verhit word nie. Enige ander materiaal is „brandbare materiaal”.

(b) 'n *Standaardvuurproef* is 'n toets waarin monsters van die betrokke beskotte of dekke, met 'n oppervlakte van ongeveer 50 vierkant voet (of 4.65 vierkant meters) en 'n hoogte van 8 voet (of 2.44 meters), wat so naas moontlik ooreenkoms met die beoogde konstruksie en wat, waar toepaslik, minstens een naat insluit, in 'n toetsvoond blootgestel word aan 'n reeks tydtemperatuurverhoudings ongeveer as volg:—

Aan die einde van die eerste 5 minute— $1,000^{\circ}\text{F}$ (of 538°C).

Aan die einde van die eerste 10 minute— $1,300^{\circ}\text{F}$ (of 704°C).

Aan die einde van die eerste 30 minute— $1,550^{\circ}\text{F}$ (of 843°C).

Aan die einde van die eerste 60 minute— $1,700^{\circ}\text{F}$ (of 927°C).

(c) *Klas A*—of *brandvaste 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 'n isoleerwaarde hê waarmee die Administrasie, met inagneming van die aard van die aangrensende ruimtes, tevreden is. In die

ing methods of protection, or a combination of these methods to the satisfaction of the Administration, shall be adopted in accommodation and service spaces with a view to preventing the spread of incipient fires from the spaces of their origin:—

Method I.—The construction of internal divisional bulkheading of "B" Class divisions (as defined in paragraph (d) of Regulation 35 of this Chapter) generally without the installation of a detection or sprinkler system in the accommodation and service spaces; or

Method II.—The fitting of an automatic sprinkler and fire alarm system for the detection and extinction of fire in all spaces in which a fire might be expected to originate, generally with no restriction on the type of internal divisional bulkheading in spaces so protected; or

Method III.—A system of subdivision within each main vertical zone using "A" and "B" Class divisions distributed according to the importance, size and nature of the various compartments, with an automatic fire detection system in all spaces in which a fire might be expected to originate, and with restricted use of combustible and highly inflammable materials and furnishings; but generally without the installation of a sprinkler system.

Where appropriate, the headings or sub-headings of the Regulations of this Part of this Chapter indicate under which Method or Methods the Regulation is a requirement.

REGULATION 35

Definitions

Wherever the phrases defined below occur throughout this Part of this Chapter, they shall be interpreted in accordance with the following definitions:—

(a) *Incombustible Material* means a material which neither burns nor gives off inflammable vapours in sufficient quantity to ignite at a pilot flame when heated to approximately $1,382^{\circ}\text{F}$. (or 750°C). Any other material is a "Combustible Material".

(b) *A Standard Fire Test* is one in which specimens of the relevant bulkheads or decks, having a surface of approximately 50 square feet (or 4.65 square metres) and height of 8 feet (or 2.44 metres) resembling as closely as possible the intended construction and including where appropriate at least one joint, are exposed in a test furnace to a series of time temperature relationships, approximately as follows:—

At the end of the first 5 minutes— $1,000^{\circ}\text{F}$. (or 538°C .)

At the end of the first 10 minutes— $1,300^{\circ}\text{F}$. (or 704°C .)

At the end of the first 30 minutes— $1,550^{\circ}\text{F}$. (or 843°C .)

At the end of the first 60 minutes— $1,700^{\circ}\text{F}$. (or 927°C .)

(c) "*A*" *Class or Fire-resisting 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 up to the end of the one-hour standard fire test;

(iv) they shall have an insulating value to the satisfaction of the Administration, having regard to the nature of the adjacent spaces. In general,

algemeen, wanneer sulke beskotte en dekke brandvaste verdelings moet vorm tussen ruimtes waarvan die een of die ander aangrensende houtwerk, houtvoering of ander brandbare materiaal bevat, moet hulle geïsoleer wees dat, indien een van die twee kante 'n uur lank aan die standaardvuurproef blootgestel word, die gemiddelde temperatuur aan die kant wat nie blootgestel is nie, op geen tydstip gedurende die toets meer as 250° F (of 139° C) bo die aanvanklike temperatuur sal styg nie, en die temperatuur mag op geen punt van daardie kant, met inbegrip van enige naat, meer as 325° F (of 180° C) bo die aanvanklike temperatuur styg nie. Die isolering kan verminder of geheel en al wegelaat word waar die gevær van brand na die mening van die Administrasie kleiner is. Die Administrasie kan eis dat 'n gemonteerde prototipe beskot of dek op die proef gestel word om te verseker dat dit aan bogenoemde vereistes met betrekking tot integriteit en temperatuurstyging voldoen.

(d) *Klas B—of brandvertragende verdelings* is daardie verdelings gevorm deur beskotte wat so gebou is dat hulle in staat is om tot aan die einde van die eerste halfuur van die standaardvuurproef die deurgang van vlamme te verhoed. Daarbenewens moet hulle 'n isoleerwaarde hê waarmee die Administrasie, met inagneming van die aard van die aangrensende ruimtes, tevrede is. In die algemeen, waar sulke beskotte brandvertragende verdelings tussen ruimtes moet vorm, moet hulle van sodanige materiaal wees dat, indien een van die twee kante gedurende die eerste halfuur van die standaardvuurproef blootgestel word, die gemiddelde temperatuur aan die kant wat nie blootgestel is nie, op geen tydstip gedurende die toets meer as 250° F (of 139° C) bo die aanvanklike temperatuur sal styg nie, en die temperatuur mag op geen punt van daardie kant, met inbegrip van enige naat, meer as 405° F (of 225° C) bo die aanvanklike temperatuur styg nie. Vir panele wat van onbrandbare materiaal gemaak is, sal dit slegs nodig wees om gedurende die eerste 15 minute van die standaardvuurproef aan bogemelde beperking met betrekking tot temperatuurstyging te voldoen, maar die toets moet tot aan die einde van die tydperk van 'n halfuur voortgesit word om op die gewone wyse die paneel se integriteit te toets. Alle materiaal wat gebruik word by die bou en oprigting van onbrandbare—klas B verdelings moet self van onbrandbare materiaal wees. Die isolering kan verminder of geheel en al wegelaat word waar die gevær van brand na die mening van die Administrasie kleiner is. Die Administrasie kan eis dat 'n gemonteerde prototipe beskot op die proef gestel word om te verseker dat dit aan bogenoemde vereistes met betrekking tot integriteit en temperatuurstyging voldoen.

(e) *Vertikale hoofsones* is daardie seksies waarin die romp, bobou en dekhuse deur klas A—verdelings verdeel is, waarvan die gemiddelde lengte op enige dek in die algemeen nie 131 voet (of 40 meters) te bove gaan nie.

(f) *Beheerposte* is daardie ruimtes waarin radio-, hoof-navigasie- of sentrale brandverliktoerusting of die noodgenerator geleë is.

(g) *Akkommodasieruimtes* is dié wat as openbare ruimtes, gange, toiletkamers, kajuite, kantore, bemanningskwartiere, haarsnyerswinkels, geïsoleerde aanregkamers en sluitkaste en soortgelyke ruimtes gebruik word.

where such bulkheads and decks are required to form fire-resisting divisions between spaces either of which contains adjacent woodwork, woodlining, or other combustible material, they shall be so insulated that, if either face is exposed to the standard fire test for one hour, the average temperature on the unexposed face will not increase at any time during the test by more than 250°F. (or 139°C.) above the initial temperature nor shall the temperature at any point on the face, including any joint, rise more than 325°F. (or 180°C.) above the initial temperature. Reduced amounts of insulation or none at all may be provided where in the opinion of the Administration a reduced fire hazard is present. The Administration may require a test of an assembled prototype bulkhead or deck to ensure that it meets the above requirements for integrity and temperature rise.

(d) "*B*" *Class or Fire-retarding Divisions* are those divisions formed by bulkheads which are so constructed that they will be capable of preventing the passage of flame up to the end of the first one-half hour of the standard fire test. In addition they shall have an insulating value to the satisfaction of the Administration, having regard to the nature of the adjacent spaces. In general, where such bulkheads are required to form fire-retarding divisions between spaces, they shall be of such material that, if either face is exposed for the first one-half hour period of the standard fire test, the average temperature on the unexposed face will not increase at any time during the test by more than 250°F. (or 139°C.) above the initial temperature, nor shall the temperature at any point on the face including any joint rise more than 405°F. (or 225°C.) above the initial temperature. For panels which are of incombustible materials it will only be necessary to comply with the above temperature rise limitation during the first 15-minute period of the standard fire test, but the test shall be continued to the end of the one-half hour to test the panel's integrity in the usual manner. All materials entering into the construction and erection of incombustible "*B*" Class divisions shall themselves be of incombustible material. Reduced amounts of insulation or none at all may be provided where in the opinion of the Administration a reduced fire hazard is present. The Administration may require a test of an assembled prototype bulkhead to ensure that it meets the above requirements for integrity and temperature rise.

(e) *Main Vertical Zones* are those sections into which the hull, superstructure, and deck houses are divided by "*A*" Class divisions, the mean length of which on any one deck does not, in general, exceed 131 feet (or 40 metres).

(f) *Control Stations* are those spaces in which radio, main navigating or central fire-recording equipment or the emergency generator is located.

(g) *Accommodation Spaces* are those used for public spaces, corridors, lavatories, cabins, offices, crew quarters, barber shops, isolated pantries and lockers and similar spaces.

- (h) *Openbare ruimtes* is daardie dele van die akkommodasie wat gebruik word as sale, eetkamers en soortgelyke blywend omslote ruimtes.
- (i) *Diensruimtes* is dié wat gebruik word as kombuise, hoofaanregkamers, vir voorrade (behalwe geïsoleerde aanregkamers en sluitkaste), en as pos- en spesiekamers en soortgelyke ruimtes en kokers na sulke ruimtes.
- (j) *Vragruimtes* is alle ruimtes wat gebruik word vir vrag (met inbegrip van vragolietenks) en kokers na sulke ruimtes.
- (k) *Masjinerieeruimtes* sluit in alle ruimtes wat gebruik word vir aandryf-, hulp- of verkoelingsmasjinerie, ketels, pompe, werkswinkels, generators, ventilerings- en lugversorgingsmasjinerie, olievulposte en soortgelyke ruimtes en kokers na sulke ruimtes.
- (l) *Staal of ander ekwivalente materiaal*. Waar die woorde „staal of ander ekwivalente materiaal” voorkom, beteken „ekwivalente materiaal” enige materiaal wat self of as gevolg van isolering, strukturele- en integriteits-eienskappe het wat aan die end van die toepaslike blootstelling aan brand gelykstaande is met dié van staal (bv. aluminium met gepaste isolering).
- (m) *Lae vlamverspreiding* beteken dat die oppervlakte wat aldus beskryf is, die verspreiding van vlamme uit die oogpunt van die brandgevaar in die betrokke ruimtes toereikend sal beperk en hierdie vermoë moet tot tevredenheid van die Administrasie deur middel van 'n gepas ingestelde toetsprosedure bepaal word.

REGULASIE 36

Bouwerk (Metodes I, II en III)

(a) Metode I

Die romp, bobou, strukturele beskotte, dekke en dekhuisse moet van staal of ander ekwivalente materiaal gebou wees.

(b) Metode II

(i) Die romp, bobou, strukturele beskotte, dekke en dekhuisse moet van staal of ander ekwivalente materiaal gebou wees.

(ii) Wanneer beskerming teen brand ooreenkomsdig metode II geskied, kan die bobou gebou word van, byvoorbeeld aluminiummallooi, mits—

- (1) die temperatuurstyging van die metaalkerns van klas A-verdelings by onderwerping aan die standaardbrandtoets met die meganiese eienskappe van die materiaal verband hou;
- (2) 'n outomatiese sproeierstelsel geïnstalleer word wat aan die bepalings van paragraaf (g) van regulasie 59 van hierdie hoofstuk voldoen;
- (3) voldoende voorsiening gemaak word om te verseker dat die inrigtings vir stuwing, tewaterlating en inskeping in reddingsvaartuie in die geval van brand net so doeltreffend bly as wanneer die bobou van staal gebou is;
- (4) die kruine en mantels van ketel- en masjinerieeruimtes van staal gebou en voldoende geïsoleer is en die openings daarin, indien enige, paslik ingerig en beskerm is om die verspreiding van brand te verhoed.

(c) Metode III

(i) Die romp, bobou, strukturele beskotte, dekke en dekhuisse moet van staal of ander ekwivalente materiaal gebou wees.

(ii) Wanneer beskerming teen brand ooreenkomsdig metode III geskied, kan die bobou gebou word van, byvoorbeeld, aluminiummallooi, mits—

- (h) *Public Spaces* are those portions of the accommodation which are used for halls, dining rooms, lounges and similar permanently enclosed spaces.
- (i) *Service Spaces* are those used for galleys, main pantries, stores (except isolated pantries and lockers), mail and specie rooms and similar spaces and trunks to such spaces.
- (j) *Cargo Spaces* are all spaces used for cargo (including cargo oil tanks) and trunks to such spaces.
- (k) *Machinery Spaces* include all spaces used for propelling, auxiliary or refrigerating machinery, boilers, pumps, workshops, generators, ventilation and air conditioning machinery, oil filling stations and similar spaces and trunks to such spaces.
- (l) *Steel or Other Equivalent Material*.—Where the words “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 (e.g., aluminium with appropriate insulation).
- (m) *Low flame spread* means that the surface thus described will adequately restrict the spread of flame having regard to the risk of fire in the spaces concerned, this being determined to the satisfaction of the Administration by a suitably established test procedure.

REGULATION 36

Structure (Methods I, II and III)

(a) Method I

The hull, superstructure, structural bulkheads, decks and deckhouses shall be constructed of steel or other equivalent material.

(b) Method II

(i) The hull, superstructure, structural bulkheads, decks and deckhouses shall be constructed of steel or other equivalent material.

(ii) Where fire protection in accordance with Method II is employed, the superstructure may be constructed of, for example, aluminium alloy, provided that—

- (1) the temperature rise of the metallic cores of the “A” Class divisions, when exposed to the standard fire test, shall have regard to the mechanical properties of the material;
- (2) an automatic sprinkler system complying with paragraph (g) of Regulation 59 of this Chapter is installed;
- (3) 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;
- (4) 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.

(c) Method III

(i) The hull, superstructure, structural bulkheads, decks and deckhouses shall be constructed of steel or other equivalent material.

(ii) Where fire protection in accordance with Method III is employed, the superstructure may be constructed of, for example, aluminium alloy, provided that—

- (1) die temperatuurstygging van die metaalkerns van klas A-verdelings by onderwerping aan die standaardbrandtoets met die meganiese eienskappe van die materiaal verband hou;
- (2) die Administrasie daarvan oortuig is dat die hoeveelheid brandbare materiaal wat in die betrokke deel van die skip gebruik word, paslik verminder word. Plafonne (d.w.s. binnebekledings van dekke) moet onbrandbaar wees;
- (3) voldoende voorseeing gemaak word om te verseker dat die inrigtings vir stuwing, tewaterlating en inskeping in reddingsvaartuie in die geval van brand net so doeltreffend bly as wannek die bobou van staal gebou is;
- (4) die kruine en mantels van ketel- en masjienerieruimtes van staal gebou en behoorlik geïsoleer is en die openings daarin, indien enige, paslik ingerig en beskerm is om die verspreiding van brand te verhoed.

REGULASIE 37

Vertikale hoofsones (Metodes I, II en III)

(a) Die romp, bobou en dekhuse moet in vertikale hoofsones onderverdeel word. Trapsgewyse verspringings en nisse moet tot 'n minimum beperk word, maar waar hulle nodig is, moet hulle klas A-verdelings wees.

(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 waterdigt 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.

(d) Op skepe wat vir 'n spesiale doel ontwerp is, soos veerbote vir die vervoer van automobile of spoorwegwaens, waar die installeering 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.

REGULASIE 38

Openings in klas A-verdelings (Metodes I, II en III)

(a) Wannek elektriese kabels, pype, kokers, leidings, ens., en draagbalke, dwarsbalke of ander bouwerke deur klas A-verdelings gevoer word, moet reëlings getref word om te verseker dat die brandweerstand nie benadeel word nie.

(b) Dempers moet aangebring word in ventilasiekokers en leidings wat deur vertikale hoofsonebeskotte loop, en moet toegerus wees met geskikte plaaslike beheermiddels wat van albei kante van die beskot bedien kan word. Die bedienplekke moet geradelik toeganklik wees en rooi gemerk word. Aanwysers moet aangebring word om aan te dui of die dempers oop of toe is.

(c) Met uitsondering van tonnemaatopenings en luuke tussen vrag-, voorraad- en bagasieruimtes, en tussen sulke ruimtes en die oopdekkie, moet alle openings toegerus word met toemaakmiddels wat blywend bevestig is en minstens net so bestand teen brand is as die verdelings waarin hulle aangebring word. Wannek daar tonnemaatopenings in klas A-verdelings is, moet die toemaakmidels staalplate wees.

(d) Die konstruksie van alle deure en deurrame in klas A-verdelings, asook die middels om hulle te bevestig wannek hulle toe is, moet vir sover moontlik net so bestand teen brand en net so rook- en vlamdig wees as die beskotte waarin die deure aangebring is. Waterdigt deure hoef nie geïsoleer te word nie.

- (1) the temperature rise of the metallic cores of the "A" Class divisions, when exposed to the standard fire test, shall have regard to the mechanical properties of the material;
- (2) the Administration shall be satisfied that the amount of combustible materials used in the relevant part of the ship is suitably reduced. Ceilings (i.e., linings of deck heads) shall be incombustible;
- (3) 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;
- (4) 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.

REGULATION 37

Main Vertical Zones (Methods I, II and III)

(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 38

Openings in "A" Class Divisions (Methods I, II and III)

(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) Dampers are to be fitted in ventilation trunks and ducts passing through main vertical zone bulkheads, and shall be fitted with suitable local control capable of being operated from both sides of the bulkhead. The operating positions shall be readily accessible and marked in red. Indicators shall be fitted to show whether the dampers are open or shut.

(c) Except for tonnage openings and 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. Where "A" Class divisions are pierced by tonnage openings the means of closure shall be by steel plates.

(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) Elke deur moet vanaf enige kant van die beskot deur slegs een persoon oopgemaak kan word. Branddeure in vertikale hoofsonebeskotte, uitgesonderd waterdige deure, moet van die selfsluitende tipe wees en eenvoudige en maklike middels hê om die deur uit die oop posisie te bevry. Hierdie deure moet van goedgekeurde tipes en ontwerpe wees, en die selfsluitmeganisme moet in staat wees om die deur te laat toegaan al word dit ook deur 'n helling van $3\frac{1}{2}$ grade teëgewerk.

REGULASIE 39

Beskotte binne vertikale hoofsones (Metodes I en III)

(a) Metode I

(i) Binne die akkommodasieruimtes moet alle insluitingsbeskotte, uitgesonderd dié wat klas A-verdelings moet wees, gebou wees van klas B-verdelings van onbrandbare materiaal, wat egter ooreenkomsdig regulasie 48 van hierdie hoofstuk met brandbare materiaal beklee mag word. Alle deur- en soortgelyke openings moet 'n sluitingsmetode hê wat bestaanbaar is met die tipe beskot waarin hulle geleë is.

(ii) Alle gangbeskote moet van dek tot dek strek. Ventilasie-openings mag in die deure in beskotte van klas B, verkiekslik in die onderste gedeelte, toegelaat word. Alle ander insluitingsbeskotte moet vertikaal van dek tot dek en in die dwarste tot by die huid en ander grense strek, tensy onbrandbare plafonne of binnebekledings wat brandintegriteit sal verseker, aangebring word, in watter geval die beskotte by die plafonne of binnebekledings kan eindig.

(b) Metode III

(i) Binne die akkommodasieruimtes moet ander insluitingsbeskotte as dié wat klas A-verdelings moet wees, klas B-verdelings wees en van onbrandbare materiaal gebou word, wat egter ooreenkomsdig regulasie 48 van hierdie hoofstuk met brandbare materiaal beklee mag word. Hierdie beskotte moet 'n ononderbroke netwerk van brandvertragende beskotte vorm waarbinne die oppervlakte van 'n enkele afdeling in die algemeen nie 1,300 vierkante voet (of 120 vierkante meters) maar nooit 1,600 vierkante voet (of 150 vierkante meters) te bove mag gaan nie; hulle moet van dek tot dek strek. Alle deuropnings en soortgelyke openings moet 'n sluitingsmetode hê wat bestaanbaar is met die tipe beskot waarin hulle geleë is.

(ii) Elke openbare ruimte wat groter as 1,600 vierkante voet (of 150 vierkante meters) is, moet omring wees deur klas B-verdelings van onbrandbare materiaal.

(iii) Die isolering van klas A- en klas B-verdelings, behalwe dié wat die skeidingsvorm van die vertikale hoofsones, die beheerposte, die trapomsluitings en die gange, kan uitgelaat word wanneer die verdelings die buitekantse deel van die skip vorm of wanneer die aangrensende afdeling nie brandgevaar bevat nie.

(iv) Alle gangbeskotte moet klas B-verdelings wees en van dek tot dek strek. Indien plafonne aangebring word, moet hulle van onbrandbare materiaal wees. Ventilasieopenings kan in deure toegelaat word, verkiekslik in die onderste gedeelte. Alle ander skeidingsbeskotte moet ook vertikaal van dek tot dek en in die dwarste tot by die huid of ander grense strek tensy onbrandbare plafonne of binnebekledings aangebring is, in watter geval die beskotte by die plafonne of binnebekledings kan eindig.

(v) Ander klas B-verdelings as dié wat van die onbrandbare tipe moet wees, moet onbrandbare kerns hê of van 'n gemonteerde tipe wees met inwendige lae asbestsplaats of soortgelyke onbrandbare materiaal. Die Administrasie kan egter ander materiaal sonder onbrandbare kerns goedkeur, mits ekwivalente brandvertragende eienskappe verseker word.

(e) It shall be possible for each door to be opened from either side of the bulkhead by one person only. Fire doors in main vertical zone bulkheads other than watertight doors shall be of the self-closing type with simple and easy means of release from the open position. These doors shall be of approved types and designs, and the self-closing mechanism shall be capable of closing the door against an inclination of $3\frac{1}{2}$ degrees opposing closure.

REGULATION 39

Bulkheads within Main Vertical Zones (Methods I and III)

(a) Method I

(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 incombustible materials, which may, however, be faced with combustible materials in accordance with Regulation 48 of this Chapter. All doorways and similar openings shall have a method of closure consistent with the type of bulkhead in which they are situated.

(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 incombustible ceilings or linings such as will ensure fire integrity are fitted, in which case the bulkheads may terminate at the ceilings or linings.

(b) Method III

(i) Within the accommodation spaces, enclosure bulkheads other than those required to be of "A" Class divisions shall be constructed of "B" Class divisions, and shall be of incombustible materials which may, however, be faced with combustible materials in accordance with Regulation 48 of this Chapter. These bulkheads shall form a continuous network of fire-retarding bulkheads within which the area of any one compartment shall not in general exceed 1,300 square feet (or 120 square metres) with a maximum of 1,600 square feet (or 150 square metres); they shall extend from deck to deck. All doorways and similar openings shall have a method of closure consistent with the type of bulkhead in which they are situated.

(ii) Each public space larger than 1,600 square feet (or 150 square metres) shall be surrounded by "B" Class divisions of incombustible materials.

(iii) The insulation of "A" Class and "B" Class divisions, except those constituting the separation of the main vertical zones, the control stations, the stairway enclosures, and the corridors, may be omitted when the divisions constitute the outside part of the ship or when the adjoining compartment does not contain fire hazard.

(iv) All corridor bulkheads shall be of "B" Class divisions and shall extend from deck to deck. Ceilings, if fitted, shall be of incombustible materials. Ventilation openings may be permitted in doors, preferably in the lower portion. All other partition bulkheads shall also extend from deck to deck vertically and to the shell or other boundaries transversely, unless incombustible ceilings or linings are fitted, in which case the bulkheads may terminate at the ceilings or linings.

(v) "B" Class divisions other than those required to be of the incombustible type shall have incombustible cores or be of an assembled type having internal layers of sheet asbestos or similar incombustible material. The Administration may, however, approve other materials without incombustible cores, provided that equivalent fire-retarding properties are ensured.

REGULASIE 40

Skeiding van akkommadasieruimtes van masjinerie-, vrag-, en diensruimtes (Metodes I, II en III)

Die grensbeskotte en dekke wat akkommadasieruimtes van masjinerie-, vrag- en diensruimtes skei, moet gebou wees as klas A-verdelings, en hierdie beskotte en dekke moet 'n isoleerwaarde hê waarmee die Administrasie met inagneming van die aard van die aangrensende ruimtes tevrede is.

REGULASIE 41

Dekbedekkings (Metodes I, II en III)

Primêre dekbedekkings binne akkommadasieruimtes, beheerposte, trappe en gange moet van goedgekeurde materiaal wees wat nie geredelik sal ontvlam nie.

REGULASIE 42

Beskerming van trappe in akkommadasie- en diensruimtes (Metodes I, II en III)

(a) *Metodes I en III*

(i) Alle trappe moet 'n staalraambou hê behalwe waar die Administrasie die gebruik van ander ekwivalente materiaal magtig; hulle moet geleë wees binne omsluitings gevorm deur klas A-verdelings en moet positiewe toemaakmiddels hê by alle openings vanaf die laagste akkommadasiedek minstens tot op 'n vlak wat regstreeks toeganklik is vanaf die oopdek, behalwe dat—

- (1) 'n trap wat slegs twee dekke verbind, nie omsluit hoeft te word nie, mits die integriteit van die dek gehandhaaf word deur behoorlike beskotte of deure op een vlak;
- (2) trappe sonder omsluiting aangebring kan word in 'n openbare ruimte, mits hulle geheel en al binne sodanige openbare ruimte geleë is.

(ii) Trapomsluitings moet regstreekse verbinding met die gange hê en moet van 'n voldoende oppervlakte wees om, gesien die getal persone wat in 'n noodgeval waarskynlik daarvan gebruik sal maak, verstopping te voorkom, en hulle moet so min akkommadasie- of ander omsluite ruimte waarin 'n brand mag ontstaan, bevat as wat moontlik is.

(iii) Trapomsluitingsbeskotte moet 'n isoleerwaarde hê waarmee die Administrasie met inagneming van die aard van die aangrensende ruimtes tevrede is. Die toemaakkmiddels by openings in trapomsluitings moet minstens net so bestand teen brand wees as die beskotte waarin hulle aangebring is. Deure, uitgesonderd waterdige deure, moet van die selfsluitende tipe wees ooreenkomsdig regulasie 38 van hierdie hoofstuk vir vertikale hoofsonbeskotte vereis.

(b) *Metode II*

(i) Hoostrappe moet 'n staalraambou hê behalwe waar die Administrasie magtig verleen vir die gebruik van ander gesikte materiaal wat, tesame met sodanige aanvullende inrigtings vir brandbeskerming en/of brandblussing as wat na die mening van die Administrasie gelykwaardig is aan sodanige staalraambou; hulle moet geleë wees binne omsluitings gevorm deur klas A-verdelings en moet positiewe toemaakmiddels hê by alle openings vanaf die laagste akkommadasiedek minstens tot op 'n vlak wat regstreeks toeganklik is vanaf die oopdek, behalwe dat—

- (1) 'n trap wat slegs twee dekke verbind nie omsluit hoeft te word nie, mits die integriteit van die dek gehandhaaf word deur behoorlike beskotte of deure op een vlak;

REGULATION 40

Separation of Accommodation Spaces from Machinery, Cargo and Service Spaces (Methods I, II and III)

The boundary bulkheads and decks separating accommodation spaces from machinery, cargo and service spaces shall be constructed as "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 41

Deck Coverings (Methods I, II and III)

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 in Accommodation and Service Spaces (Methods I, II and III)

(a) *Methods I and III*

(i) 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 from the lowest accommodation deck at least to a level which is directly accessible to the open deck, except that:—

- (1) 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 level;
- (2) stairways may be fitted in the open in a public space, provided they lie wholly within such public space.

(ii) 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, and shall contain as little accommodation or other enclosed space in which a fire may originate as practicable.

(iii) Stairway enclosure bulkheads shall have an insulation value to the satisfaction of the Administration, having regard to the nature of the adjacent spaces. The means for closure at openings in stairway enclosures shall be at least as effective for resisting fire as the bulkheads in which they are fitted. Doors other than watertight doors shall be of the self-closing type, as required for the main vertical zone bulkheads, in accordance with Regulation 38 of this Chapter.

(b) *Method II*

(i) Main stairways shall be of steel frame construction, except where the Administration sanctions the use of other suitable materials which, together with such supplementary fire protection and/or extinction arrangements as would, in the opinion of the Administration, be equivalent to such construction, and shall be within enclosures formed of "A" Class divisions with positive means of closure at all openings from the lowest accommodation deck at least to a level which is directly accessible to the open deck except that—

- (1) 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 level;

- (2) trappe sonder omsluiting aangebring kan word in 'n openbare ruimte, mits hulle geheel en al binne sodanige openbare ruimte geleë is.
- (ii) Trapomsluitings moet regstreekse verbinding met die gange hê en moet van 'n voldoende oppervlakte wees om, gesien die getal persone wat in 'n noodgeval waarskynlik daarvan gebruik sal maak, verstopping te voorkom, en hulle moet so min akkommodasie- of ander omslote ruimte waarin 'n brand mag ontstaan bevat as wat prakties moontlik is.
- (iii) Trapomsluitingsbeskotte moet 'n isoleerwaarde hê waarmee die Administrasie met inagneming van die aard van die aangrensende ruimtes, tevrede is. Die toemaakkommiddels by openings in trapomsluitings moet minstens net so bestand teen brand wees as die beskotte waarin hulle aangebring is. Deure, uitgesonderd waterdige deure, moet van die selfsluitende tipe wees ooreenkomsdig regulasie 38 van hierdie hoofstuk vir vertikale hoofsonebeskotte vereis.
- (iv) Hulptrappe, naamlik dié wat nie deel uitmaak van die nooduitgange wat by regulasie 68 van hierdie hoofstuk vereis word nie en wat slegs twee dekke verbind, moet 'n staalraambou hê, behalwe waar die Administrasie die gebruik van ander geskikte materiaal in spesiale gevalle magtig, maar hulle hoeft nie binne omsluitings geleë te wees nie, mits die integriteit van die dek deur sproeiers by die hulptrappe gehandhaaf word.

REGULASIE 43

Beskerming van hysbakke (persones en diens), vertikale kokers vir lig en lug, ens., in akkommodasie- en diensruimtes (metodes I, II en III)

(a) Kokers vir persones en dienshysbakke, vertikale kokers vir lig en lug vir passasierruimtes, ens., moet klas A-verdelings wees. Deure moet van staal of ander ekwivalente materiaal wees en waarnanneer hulle toe is, moet hulle minstens net so bestand teen brand wees as die kokers waarin hulle aangebring is.

(b) Hysbakkokkers moet op so 'n wyse aangebring word dat hulle nie rook en vlamme vanaf die een tussen-dek na die ander sal deurlaat nie, en hulle moet met toemaakkommiddels toegerus wees sodat die trek van lug asook rook beheer kan word. Die isolering van hysbakkokkers wat binne trapomsluitings geleë is, is nie verpligtend nie.

(c) Wanneer 'n koker vir lig en lug met meer as een tussen-dekruimte verbind is, en na die mening van die Administrasie waarskynlik rook en vlamme van die een tussen-dek na die ander sal deurlaat, moet rookkleppe in geskikte posisies aangebring word sodat elke ruimte in die geval van brand geïsoleer kan word.

(d) Alle ander kokers (bv. vir elektriese kabels) moet so gebou wees dat hulle nie vuur vanaf een tussen-dek of afdeling na 'n ander sal deurlaat nie.

REGULASIE 44

Beskerming van beheerposte (Metodes I, II en III)

Beheerposte moet deur beskotte en dekke van klas A van die res van die skip geskei word.

REGULASIE 45

Beskerming van voorraadkamers, ens. (Metodes I, II en III)

Die grensbeskotte van bagasiekamers, poskamers, voorraadkamers, verf- en lampkamers, kombuis en soortgelyke ruimtes moet klas A-verdelings wees. Ruimtes wat hoogs ontvlambare voorrade bevat, moet so geleë wees dat gevvaar vir passasiers en bemanning in die geval van brand tot 'n minimum beperk sal wees.

(2) stairways may be fitted in the open in a public space, provided they lie wholly within such public space.

(ii) 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, and shall contain as little accommodation or other enclosed space in which a fire may originate as practicable.

(iii) Stairway enclosure bulkheads shall have an insulation value to the satisfaction of the Administration having regard to the nature of the adjacent spaces. The means for closure at openings in stairway enclosures shall be at least as effective for resisting fire as the bulkheads in which they are fitted. Doors other than watertight doors shall be of the self-closing type as required for the main vertical zone bulkheads, in accordance with Regulation 38 of this Chapter.

(iv) Auxiliary stairways, namely those which do not form part of the means of escape required by Regulation 68 of this Chapter and which connect only two decks, shall be of steel frame construction, except where the Administration sanctions the use of other suitable material in special cases, but need not be within enclosures, provided the integrity of the deck is maintained by the fitting of sprinklers at the auxiliary stairways.

REGULATION 43

Protection of Lifts (Passenger and Service), Vertical Trunks for Light and Air, &c., in Accommodation and Service Spaces (Methods I, II and III)

(a) Passenger and service lift trunks, vertical trunks for light and air to passenger spaces, &c., 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.

(b) Lift trunks 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 of draught and smoke control. The insulation of lift trunks which are within stairway enclosures shall not be compulsory.

(c) Where a trunk for light and air communicates with more than one between deck space, and, in the opinion of the Administration, smoke and flame are likely to be conducted from one between deck to another, smoke shutters, suitably placed, shall be fitted so that each space can be isolated in case of fire.

(d) Any other trunks (e.g., for electric cables) shall be so constructed as not to afford passage for fire from one between deck or compartment to another.

REGULATION 44

Protection of Control Stations (Methods I, II and III)

Control stations shall be separated from the remainder of the ship by "A" Class bulkheads and decks.

REGULATION 45

Protection of Store Rooms, &c. (Methods I, II and III)

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 minimise the danger to passengers or crew in the event of fire.

REGULASIE 46

Vensters en patryspoorte (Metodes I, II en III)

(a) Alle vensters en patryspoorte in beskotte wat akkommodasieruimtes en die buitelug skei, moet gebou word met rame wat van staal of ander gesikte materiaal gemaak is. Die glas moet met 'n ruitkraallys van metaal bevestig word.

(b) Alle vensters en patryspoorte in beskotte binne akkommodasieruimtes moet so gebou word dat die integriteitsvereistes van die tipe beskot waarin hulle aangebring word, gehandhaaf word.

(c) In ruimtes wat (1) hoofaandrywingsmasjinerie, of (2) oliestookte ketels, of (3) hulpmasjinerie van die binnebrandtipe met 'n totale perdekrag van 1,000 of meer bevat, moet die volgende maatreëls getref word—

- (i) dakvensters moet van buitekant die ruimte vandaan gesluit kan word.
- (ii) dakvensters met glaspanele moet aan die buitekant toegerus wees met luke van staal of ander ekwivalente materiaal wat blywend bevestig is.
- (iii) enige venster wat deur die Administrasie toegelaat word in kaste van sulke ruimtes moet van 'n tipe wees wat nie oopgemaak kan word nie, en moet aan die buitekant toegerus wees met 'n luik van staal of ander ekwivalente materiaal wat blywend bevestig is;
- (iv) draadversterkte glas moet gebruik word in die vensters en dakvensters vermeld in subparagrawe (i), (ii) en (iii) van hierdie paragraaf.

REGULASIE 47

Ventilasiestelsels (Metodes I, II en III)

(a) Die hoofinlaat- en uitlaatopenings van alle ventilasiestelsels moet in die geval van brand buite die ruimte vandaan toegemaak kan word. In die algemeen moet die ventilasiewaaiers so geplaas word dat die lugkokers wat na die verskillende ruimtes lei, binne die vertikale hoofzone bly.

(b) Alle kragventilasie-inrigtings, behalwe dié vir vrag- en masjineriuimtes en enige alternatiewe stelsel wat ooreenkomsdig paragraaf (d) van hierdie regulasie vereis mag word, moet toegerus word met hoofkontroles sodat alle waaiers tot stilstand gebring kan word vanaf die een of die ander van twee afsonderlike posisies wat so ver as moontlik van mekaar geleë moet wees. Twee hoofkontroles moet verskaf word vir die kragventilasie-inrigtings wat masjineriuimtes bedien, en een van hulle moet vanaf 'n plek buitekant die masjineriuimte bedien kan word.

(c) Uitlaatkokers vanaf kombuisstowe moet doeltreffend geïsoleer word waar die kokers deur akkommodasieuimtes loop.

(d) Maatreëls wat prakties uitvoerbaar is, moet ten opsigte van beheerposte wat onderkant die dek en buitekant masjineriuimtes geleë is, getref word ten einde te verseker dat ventilasie, sigbaarheid en vryheid van rook gehandhaaf word, sodat daar in die geval van brand oor die masjinerie en uitrusting daarin toesig gehou kan word en hulle kan aanhou om doeltreffend te funksioneer. Alternatiewe en geheel en al afsonderlike lugtoevoermiddels moet vir hierdie beheerposte aangebring word; luginlaatopenings na die twee toevoerbronre moet so geplaas word dat die gevær dat albei inlaatopenings gelyktydig rook sal intrek, tot 'n minimum beperk word. Volgens die goeddunke van die Administrasie hoef sodanige vereistes nie te geld vir ruimtes wat op 'n oopdek geleë is en uitloop nie, of waar plaaslike toemaakinrigtings ewe doeltreffend sou wees nie.

REGULATION 46

Windows and Sidescuttles (Methods I, II and III)

(a) All windows and sidescuttles in bulkheads separating accommodation spaces and 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.

(c) In spaces containing (1) main propulsion machinery, or (2) oil-fired boilers, or (3) auxiliary internal combustion type machinery of total horsepower of 1,000 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;
- (iv) in the windows and skylights referred to in sub-paragraphs (i), (ii) and (iii) of this paragraph, wire reinforced glass shall be used.

REGULATION 47

Ventilation Systems (Methods I, II and III)

(a) The main inlets and outlets of all ventilation systems shall be capable of being closed from outside the space in the event of a fire. In general, the ventilation fans shall be so disposed that the ducts reaching the various spaces remain within the main vertical zone.

(b) All power ventilation, except cargo and machinery space ventilation and any alternative system which may be required under paragraph (d) of this Regulation, shall be fitted with master controls so that all fans may be stopped from either of two separate positions which shall be situated as far apart as practicable. Two master controls shall be provided for the power ventilation serving machinery spaces, one of which shall be operable from a position outside the machinery space.

(c) Efficient insulation shall be provided for exhaust ducts from galley ranges where the ducts pass through accommodation spaces.

(d) Such measures as are practicable shall be taken in respect of control stations situated below deck and 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 continued to function effectively. Alternative and entirely separate means of air supply shall be provided for these control stations; air inlets to the two sources of supply shall be so disposed that the risk of both inlets drawing in smoke simultaneously is minimised. At the discretion of the Administration, such requirements need not apply to spaces situated on, and opening on to, an open deck, or where local closing arrangements would be equally effective.

REGULASIE 48

Besonderhede van bou (Metodes I en III)

(a) *Metode I*

Behalwe in vrugruimtes, poskamers, bagasiekamers of verkoelde afdelings van diensruimtes moet alle bekledings, style, plafonne en isolerings van onbrandbare materiaal wees. Die totale volume van brandbare belegsels, lyswerk, versierings en fineersel in 'n akkommodasie- of openbare ruimte mag nie groter wees nie as 'n volume gelyk aan een tiende duim (of 2.54 millimeters) fineersel op die gesamentlike oppervlakte van die mure en die plafon. Alle blootgestelde oppervlaktes in gange of trapomsluitings en in verskuilde of ontoeganklike ruimtes moet lae vlamverspreidingseienskappe hê.

(b) *Metode III*

Die gebruik van brandbare materiaal van alle soorte soos onbehandelde hout, fineersel, plafonne, gordyne, tapyte, ens., moet verminder word vir sover dit redelik en doenlik is. In groot openbare ruimtes, moet die style en draagbalke van die bekledings en plafonne van staal of ekwivalente materiaal wees. Alle blootgestelde oppervlaktes in gange of trapomsluitings en in verskuilde of ontoeganklike ruimtes moet lae vlamverspreidingseienskappe hê.

REGULASIE 49.

Diverse items (Metodes I, II en III)

Vereistes wat op alle dele van die skip van toepassing is

(a) Verf, vernis en soortgelyke preparate met 'n nitrocellulose- of ander hoogs ontvlambare basis mag nie gebruik word nie.

(b) Pype wat deur klas A- of klas 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 gevær 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 gevær van oorstroming sou laat ontstaan nie.

Vereistes van toepassing op akkommodasie- en diensruimtes

(c) (i) Lugruimtes wat omsluit is agter plafonne, paneelwerke of bekledings moet paslik onderverdeel word deur middel van noupassende trekwerende middels wat nie meer as 45 voet (of 13.73 meters) van mekaar geleë is nie.

(ii) In die vertikale rigting moet sulke ruimtes met inbegrip van dié agter bekledings van trappe, kokers, ens., op elke dek toe wees.

(d) Die bou van plafonne en beskotwerk moet sodanig wees dat dit vir die brandronde diens moontlik sal wees om rook wat in verskuilde en ontoeganklike plekke ontstaan, sonder belemmering van die doeltreffendheid van die brandbeskerming op te spoor, behalwe wanneer daar na die mening van die Administrasie geen gevær bestaan dat brand in sulke plekke sal ontstaan nie.

(e) Die verskuilde oppervlaktes van alle beskotte, bekledings, paneelwerke, trappe, houtstyle, ens., in akkommodasieuimtes moet lae vlamverspreidingseienskappe hê.

REGULATION 48

Details of Construction (Methods I and III)

(a) *Method I*

Except in cargo spaces, mail rooms, baggage rooms, or refrigerated compartments of service spaces, all linings, grounds, ceilings and insulations shall be of incombustible materials. The total volume of combustible facings, mouldings, decorations and veneers in any accommodation or public space shall not exceed a volume equivalent to one-tenth inch (or 2.54 millimetres) veneer on the combined area of the walls and ceiling. All exposed surfaces in corridors or stairway enclosures and in concealed or inaccessible spaces shall have low flame spread characteristics.

(b) *Method III*

The use of combustible materials of all kinds such as untreated wood, veneers, ceilings, curtains, carpets, &c. shall be reduced in so far as it is reasonable and practicable. In large public spaces, the grounds and supports to the linings and ceilings shall be of steel or equivalent material. All exposed surfaces in corridors or stairway enclosures and in concealed or inaccessible spaces shall have low flame spread characteristics.

REGULATION 49

Miscellaneous Items (Methods I, II and III)

Requirements applicable to all parts of the ship

(a) Paints, varnishes and similar preparations having a nitro-cellulose or other highly inflammable base shall not be used.

(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.

Requirements applicable to accommodation and service spaces

(c) (i) Air spaces enclosed behind ceilings, panelings or linings shall be suitably divided by close-fitting draught stops not more than 45 feet (or 13.73 metres) apart.

(ii) In the vertical direction, such spaces, including those behind linings of stairways, trunks, etc., shall be closed at each deck.

(d) 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.

(e) The concealed surfaces of all bulkheads, linings, panelings, stairways, wood grounds, etc., in accommodation spaces shall have low flame spread characteristics.

(f) Indien elektriese verwarmers gebruik word, moet hulle vas en so gebou wees dat die gevaar van brand tot 'n minimum beperk word. Sulke verwarmers mag nie toegerus wees met 'n element wat so oop is dat klerasie, gordyne of ander soortgelyke materiaal deur hitte van die element geskroeи of aan die brand gesteek kan word nie.

REGULASIE 50

Rolprentfilm (Metodes I, II en III)

Films met 'n sellulosebasis moet nie in rolprentinstallasies aan boord van die skip gebruik word nie.

REGULASIE 51

Otomatiese sproeier- en brandalarm- en -verklikstelsels (Metode II)

Op skepe waarin metode II aangewend word, moet 'n otomatiese sproeier- en brandalarmstelsel van 'n goedgekeurde tipe wat voldoen aan die vereistes van regulasie 59 van hierdie hoofstuk, geïnstalleer en so ingerig word dat dit beskerming sal verleen aan alle omslote ruimtes wat vir die gebruik of diens van passasiers of bemanning aangewys is, behalwe ruimtes wat geen wesenlike brandgevaar bied nie.

REGULASIE 52

Otomatiese brandalarm- en brandverklikstelsels (Metode III)

Op skepe waarin metode III aangewend word, moet 'n brandverklikstelsel van 'n goedgekeurde tipe geïnstalleer en so ingerig word dat dit die aanwesigheid van brand in alle omslote ruimtes wat vir die gebruik of diens van passasiers of bemanning (behalwe ruimtes wat geen wesenlike brandgevaar bied nie) aangewys is, sal verklik en die aanwesigheid of tekens van 'n brand en ook die posisie daarvan otomaties sal aandui op een of meer plekke of poste waar dit die gouste deur offisiere en bemanning opgemerk sal word.

REGULASIE 53

Passasierskepe wat hoogstens 36 passasiers vervoer

(a) Benewens om aan die bepalings van regulasie 35 van hierdie hoofstuk onderworpe te wees, moet skepe wat hoogstens 36 passasiers vervoer, aan die bepalings van regulasies 36, 37, 38, 40, 41, 43 (a), 44, 45, 46, 49 (a), (b) en (f) en 50 van hierdie hoofstuk voldoen. Waar geïsoleerde klas A-verdelings ooreenkomsdig bogenoemde regulasies vereis word, kan die Administrasie inwillig dat die hoeveelheid isolering verminder word tot minder as wat by subparagraaf (c) (iv) van regulasie 35 van hierdie hoofstuk beoog word.

(b) Afgesien daarvan dat nakoming vereis word van die regulasies waarvan in paragraaf (a) melding gemaak word, is die volgende bepalings van toepassing—

- (i) alle trappe en nooduitgange in akkommodasie- en diensruimtes moet van staal of ander geskikte materiaal wees;
- (ii) kragventilasie van masjinerieruimtes moet stopgesit kan word vanaf 'n maklik toeganklike plek buite die masjinerieruimte;
- (iii) behalwe wanneer alle insluitingsbeskotte in akkommodasieruimtes voldoen aan die bepalings van regulasies 39 (a) en 48 (a) van hierdie hoofstuk, moet sulke skepe toegerus word met 'n otomatiese brandverklikstelsel wat aan regulasie 52

(f) Electric radiators, if used, must 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.

REGULATION 50

Cinematograph Film (Methods I, II, and III)

Cellulose-based film shall not be used in cinematograph installations on board ship.

REGULATION 51

Automatic Sprinkler and Fire Alarm and Detection Systems (Method II)

In ships in which Method II is adopted, an automatic sprinkler and fire alarm system of an approved type and complying with the requirements of Regulation 59 of this Chapter shall be installed and so arranged as to protect all enclosed spaces appropriated to the use or service of passengers or crew, except spaces which afford no substantial fire risk.

REGULATION 52

Automatic Fire Alarm and Fire Detection Systems (Method III)

In ships in which Method III is adopted, 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 53

Passenger Ships carrying not more than 36 Passengers

(a) In addition to being subject to the provisions of Regulation 35 of this Chapter, ships carrying not more than 36 passengers shall comply with Regulations 36, 37, 38, 40, 41, 43 (a), 44, 45, 46, 49 (a), (b) and (f) and 50 of this Chapter. Where insulated "A" Class divisions are required under the aforementioned Regulations, the Administration may agree to a reduction of the amount of insulation below that envisaged by sub-paragraph (c) (iv) of Regulation 35 of this Chapter.

(b) In addition to compliance with the Regulations referred to in paragraph (a), the following provisions shall apply—

- (i) all stairways and means of escape in accommodation and service spaces shall be of steel or other suitable material;
- (ii) power ventilation of machinery spaces shall be capable of being stopped from an easily accessible position outside the machinery spaces;
- (iii) except where all enclosure bulkheads in accommodation spaces conform with the requirements of Regulations 39 (a) and 48 (a) of this Chapter, such ships shall be provided with an automatic fire detection system conforming with Regulation 52 of

van hierdie hoofstuk voldoen, en in akkommaderuimtes moet die gangbeskotte van staal wees of gebou wees van klas B-panele.

REGULASIE 54

Vragskepe van 4,000 ton bruto tonnemaat en meer

(a) Die romp, bobou, boubeskotte, dekke en dekhuse moet van staal gebou wees behalwe waar die Administrasie in spesiale gevalle en met inagneming van die gevaar van brand die gebruik van ander geskikte materiaal goedkeur.

(b) In akkommaderuimtes moet die gangbeskotte van staal wees of gebou wees van klas B-panele.

(c) Dekbedekings binne akkommaderuimtes op die dekke wat die kruin uitmaak van masjinerie- en vragskepe, moet van 'n tipe wees wat nie geredelik sal ontvlam nie.

(d) Binnetrappe onderkant die oopdek moet van staal of ander geskikte materiaal wees. Bemanningshysbakokers binne akkommaderuimtes moet van staal of ekwivalente materiaal wees.

(e) Beskotte van kombuise, verfkamers, lampkamers en voorraadkamers van bootsmanne moet van staal of ekwivalente materiaal wees indien hulle geleë is aan akkommaderuimtes en noodgenerators, indien daar is.

(f) In akkommaderuimtes en masjinerieruimtes mag verf, vernis en soortgelyke preparate met 'n nitrocellulose- of ander hoogs ontvlambare basis nie gebruik word nie.

(g) Pype waardeur olie of brandbare vloeistowwe gevoer word, moet van materiaal wees wat deur die Administrasie met inagneming van die gevaar van brand goedkeur 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.

(h) Indien elektriese verwarmers gebruik word, moet hulle vas en so gebou wees dat die gevaar van brand tot 'n minimum beperk word. Sulke verwarmers mag nie toegerus wees met 'n element wat so oop is dat klerasie, gordyne of ander soortgelyke materiaal deur hitte van die element geskroeï of aan die brand gesteek kan word nie.

(i) Films met 'n cellulosebasis moet nie in rolprentinstallasies aan boord van die skip gebruik word nie.

(j) Kragventilasie van masjinerieruimtes moet stopgesit kan word vanaf 'n maklik toeganklike plek buite die masjinerieruimtes.

DEEL E—ONTDEKKING EN BLUS VAN BRAND IN PASSASIERSKEPE EN VRAGSKEP

(Deel E is van toepassing op passasiërskepe en vragskepe behalwe dat regulasies 59 en 64 slegs op passasiërskepe en regulasie 65 slegs op vragskepe van toepassing is.)

OPMERKING.—Regulasies 56 tot en met 63 bevat die voorwaardes waaraan die toestelle genoem in regulasies 64 en 65 moet voldoen.

REGULASIE 55

Definisiës

In hierdie deel van hierdie hoofstuk, tensy uitdruklik anders bepaal, beteken—

- (a) die *lengte van die skip*, die lengte gemeet tussen loodlyne;
- (b) *vereis*, by hierdie deel van hierdie hoofstuk vereis.

this Chapter and in accommodation spaces, the corridor bulkheads shall be of steel or be constructed of "B" Class panels.

REGULATION 54

Cargo Ships of 4,000 tons Gross Tonnage and Upwards

(a) The hull, superstructure, structural bulkheads, decks and deck houses 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.

(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, lamprooms, 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) Electric radiators, if used, must 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.

(i) Cellulose-based film shall not be used in cinematograph installations on board ship.

(j) Power ventilation of machinery spaces shall be capable of being stopped from an easily accessible position outside the machinery spaces.

PART E—FIRE DETECTION AND EXTINCTION IN PASSENGER SHIPS AND CARGO SHIPS

(Part E applies to passenger ships and cargo ships except that Regulations 59 and 64 apply only to passenger ships and Regulation 65 applies only to cargo ships.)

NOTE.—Regulations 56 to 63 inclusive set forth the conditions with which the appliances mentioned in Regulations 64 and 65 are required to comply.

REGULATION 55

Definitions

In this Part of this Chapter, unless expressly provided otherwise:—

- (a) The *length of the ship* is the length measured between perpendiculars.
- (b) *Required* means required by this Part of this Chapter.

REGULASIE 56

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 (indien daar een is), in staat wees om teen die toepaslike voorgeskrewe druk, vir brandbestrydingsdoeleindes minstens vier-derdes soveel water te lewer as wat ooreenkomsdig regulasie 18 van hierdie hoofstuk deur elk van die onafhanglike lenspompe in 'n passasierskip van dieselfde afmetings behartig moet word wanneer hy vir lenspomping gebruik word. In die plek van die definisies ten opsigte van L, B en D waarvan in paragraaf (i) van regulasie 18 van hierdie hoofstuk melding gemaak word, geld die volgende:—

L = lengte tussen loodlyne.

B = grootste breedte ooreenkomsdig die mal.

D = diepte tot by die beskotdek midskeeps.

In geen vragskip hoef die totale vereiste vermoë van die brandpompe egter 180 ton per uur te bowe te gaan nie.

(b) Brandpompe

(i) Die brandpompe moet onafhanglik aangedryf word. Sanitaire-, ballas-, lens- of algemene dienspompe kan as brandpompe aanvaar word, mits hulle nie normaalweg vir die pomp van olie gebruik word nie en mits gesikte omskakelingsinrigtings aangebring is in gevalle waar hulle straks af en toe aangewend word om brandolie oor te voer of te pomp.

(ii) Elkeen van die vereiste brandpompe (behalwe 'n noodpomp wat by regulasie 65 van hierdie hoofstuk vereis word) moet 'n vermoë hê van minstens 80 persent van die totale vereiste vermoë gedeel deur die getal brandpompe wat vereis word, en moet in elk geval in staat wees om minstens die twee vereiste strale water te lewer. Hierdie brandpompe moet in staat wees om die hoofbrandnet onder die vereiste toestand van water te voorsien.

Wanneer meer pompe geïnstalleer word as wat vereis word, moet hulle beskik oor 'n vermoë wat die Administrasie tevrede stel.

(iii) Alle brandpompe moet met ontlastkleppe toegerus word indien die pompe 'n groter druk kan ontwikkel as die ontwerpdruck 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 uitstroming uit twee brandpompe wat gelyktydig werk, maar in die geval van vragskepe hoef die deursnee slegs voldoende te wees vir die uitlatting van 140 ton per uur.

(ii) Wanneer die twee pompe gelyktydig deur spuitstukke gespesifieer 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:—

REGULATION 56

Pumps, Water Service Pipes, 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 of delivering for firefighting purposes a quantity of water, at the appropriate pressure prescribed, not less than four-thirds of the quantity required under Regulation 18 of this Chapter to be dealt with by each of the independent bilge pumps in a passenger ship of the same dimensions, when employed on bilge pumping. In place of the definitions covering L, B and D referred to in paragraph (i) of Regulation 18 of this Chapter, the following shall apply—

L= length between perpendiculars.

B=greatest moulded breadth.

D=depth to bulkhead deck amidships.

Provided that in no cargo ship need the total required capacity of the fire pumps exceed 180 tons 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) Each of the required fire pumps (other than any emergency pump required by Regulation 65 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 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 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 tons per hour.

(ii) With the two pumps simultaneously delivering through nozzles specified in paragraph (g) of this Regulation, the quantity of water specified in sub-paragraph (i) of this paragraph, through any adjacent hydrants, the following minimum pressures shall be maintained at all hydrants:—

<i>Passasierskepe</i>	<i>Passenger ships</i>	
4,000 ton bruto tonnemaat en meer	45 pond per vierkante duim (of 3·2 kilogram per vierkante sentimeter)	45 pounds per square inch (or 3·2 kilogrammes per square centimetre)
1,000 ton bruto tonnemaat en meer, maar minder as 4,000 ton bruto tonnemaat	40 pond per vierkante duim (of 2·8 kilogram per vierkante sentimeter)	40 pounds per square inch (or 2·8 kilogrammes per square centimetre)
Minder as 1,000 ton bruto tonnemaat	Tot tevredenheid van die Administrasie	To the satisfaction of the Administration
<i>Vragiskepe.</i>	<i>Cargo ships</i>	
6,000 ton bruto tonnemaat en meer	40 pond per vierkante duim (of 2·8 kilogram per vierkante sentimeter)	40 pounds per square inch (or 2·8 kilogrammes per square centimetre)
1,000 ton bruto tonnemaat en meer, maar minder as 6,000 ton bruto tonnemaat	37 pond per vierkante duim (of 2·6 kilogram per vierkante sentimeter)	37 pounds per square inch (or 2·6 kilogrammes per square centimetre)
Minder as 1,000 ton bruto tonnemaat	Tot tevredenheid van die Administrasie	To the satisfaction of the Administration

(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 dekvrug vervoer mag word, moet die brandkrane so geleë wees dat hulle altyd geredelik toeganklik is en moet die pype vir sover doenlik so geplaas wees dat gevvaar van beskadiging deur sodanige vrag verminder word. Tensy een brandslang en spuitstuk vir elke brandkraan op die skip verskaf word, moet daar volkome verwisselbaarheid van slangekopplings en spuitstukke wees.

(ii) Krane of kleppe moet op sulke plekke aan die pype aangebring word dat enige van die brandslange verwijder kan word terwyl die brandpompe aan die werk is.

(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. Hul maksimum lengte moet die goedkeuring van die Administrasie wegdra. Elke slang moet met 'n spuitstuk en die nodige koppelingte toegerus wees. Slange wat in hierdie regulasies as "brandslange" aangedui word, moet saam met die nodige toebehore en gereedskap, op opvallende plekke naby die watertoevoerbrandkrane of verbindings gered vir gebruik gehou word.

(g) Spuitstukke

(i) Vir die toepassing van hierdie deel moet die standaardgroottes van die spuitstukke $\frac{1}{2}$ duim (of 12 millimeters), $\frac{3}{8}$ duim (of 16 millimeters) en $\frac{5}{8}$ duim (of 20 millimeters) of so na as moontlik daaraan wees. Spuitstukke met 'n groter deursnee is toelaatbaar mits hulle voldoen aan die bepalings van subparagraaf (b) (ii) van hierdie regulasie.

(ii) Vir akkommodasie- en diensruimtes is dit nie nodig om 'n spuitstuk met 'n deursnee van meer as $\frac{1}{2}$ duim (of 12 millimeters) te gebruik nie.

(iii) Vir masjinerieruimtes en buiteplekke moet die groote 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.

(h) Internasionale landaansluiting

Die internasionale landaansluiting wat ingevolge paragraaf (d) van regulasie 64 en paragraaf (d) van regulasie 65 van hierdie hoofstuk in die skip geïnstalleer moet word, moet met die volgende spesifikasies en die aangehegte skets strook.

<i>Passenger ships</i>		
4,000 tons gross tonnage and upwards	45 pounds per square inch (or 3·2 kilogrammes per square centimetre)	45 pounds per square inch (or 3·2 kilogrammes per square centimetre)
1,000 tons gross tonnage and upwards, but under 4,000 tons gross tonnage	40 pounds per square inch (or 2·8 kilogrammes per square centimetre)	40 pounds per square inch (or 2·8 kilogrammes per square centimetre)
Under 1,000 tons gross tonnage	To the satisfaction of the Administration	To the satisfaction of the Administration
<i>Cargo ships</i>		
6,000 tons gross tonnage and upwards	40 pounds per square inch (or 2·8 kilogrammes per square centimetre)	40 pounds per square inch (or 2·8 kilogrammes per square centimetre)
1,000 tons gross tonnage and upwards, but under 6,000 tons gross tonnage	37 pounds per square inch (or 2·6 kilogrammes per square centimetre)	37 pounds per square inch (or 2·6 kilogrammes per square centimetre)
Under 1,000 tons gross tonnage	To the satisfaction of the Administration	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 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) Cocks or valves shall be fitted in such positions on the pipes that any of the fire hoses 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 these Regulations 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.

(g) Nozzles

(i) For the purposes of this Part, standard nozzle sizes shall be $\frac{1}{2}$ inch (or 12 millimetres), $\frac{3}{8}$ inch (or 16 millimetres) and $\frac{5}{8}$ inch (or 20 millimetres), or as near thereto as possible. Larger diameter nozzles may be permitted subject to compliance with sub-paragraph (b) (ii) of this Regulation.

(ii) For accommodation and service spaces, a nozzle size greater than $\frac{1}{2}$ inch (or 12 millimetres) need not be used.

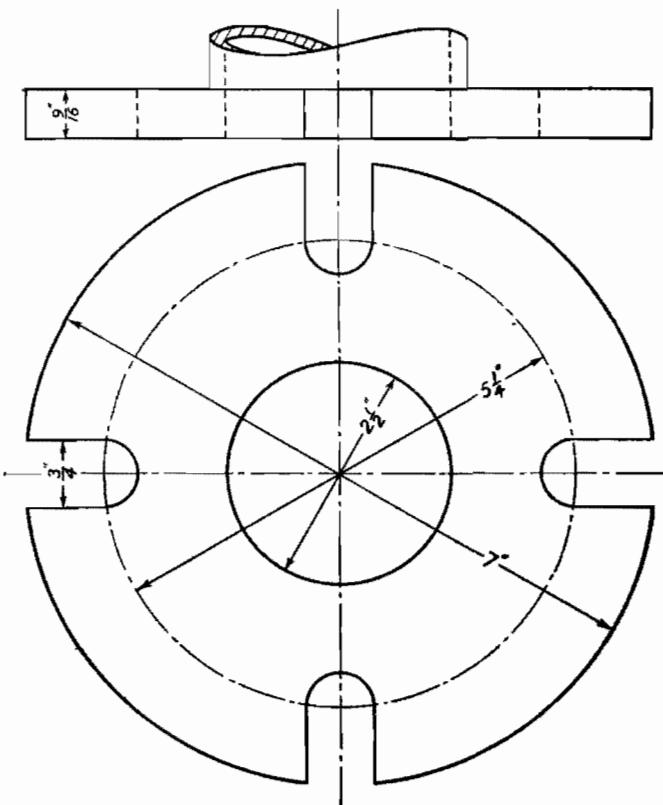
(iii) For machinery spaces and exterior locations, the nozzle size shall be such as to obtain the maximum discharge possible from two jets at the pressure mentioned in paragraph (c) of this Regulation from the smallest pump.

(h) International Shore Connection

The international shore connection required by paragraph (d) of Regulation 64 and paragraph (d) of Regulation 65 of this Chapter to be installed in the ship shall be in accordance with the following specification and the appended sketch.

Buiteursnee: 7 duim (of 178 millimeters).
 Binnedursnee: 2½ duim (of 64 millimeters).
 Deursnee van die boutsirkel: 5½ duim (of 132 millimeters).
 Gate: 4 gate met 'n deursnee van ¾ duim (of 19 millimeters), ewe ver uit mekaar aangebring, ggleuf na die flensrand.
 Dikte van die flens: minstens $\frac{1}{16}$ duim (of 14.5 millimeters).
 Boute: 4, elk met 'n deursnee van $\frac{1}{8}$ duim (of 16 millimeters), en 2 duim (of 50 millimeters) lank.
 Flensoppervlakte: Plat vlak.
 Materiaal: Enige materiaal geskik vir gebruik onder 'n drukking van 150 pond per vierkante duim (of 10.5 kilogram per vierkante sentimeter).
 Pakstuk: Enige pakstuk geskik vir gebruik onder 'n drukking van 150 pond per vierkante duim (of 10.5 kilogram per vierkante sentimeter).
 Die aansluiting moet vervaardig wees van materiaal wat geskik is vir gebruik onder 'n drukking van 150 pond per vierkante duim (of 10.5 kilogram per vierkante sentimeter). Die flens moet aan die een kant 'n plat vlak hê en aan die ander kant moet daar 'n permanente bevestigde koppeling wees wat op die skip se brandkrane en slang sal pas. Die aansluiting, tesame met 'n pakstuk van materiaal geskik vir gebruik onder 'n drukking van 150 pond per vierkante duim (of 10.5 kilogram per vierkante sentimeter), asook vier boute van $\frac{1}{8}$ duim (of 16 millimeters) dik en 2 duim (of 50 millimeters) lank en agt wasters, moet aan boord van die skip gehou word.

INTERNASIONALE LANDAANSLUITING (SKIP)



REGULASIE 57

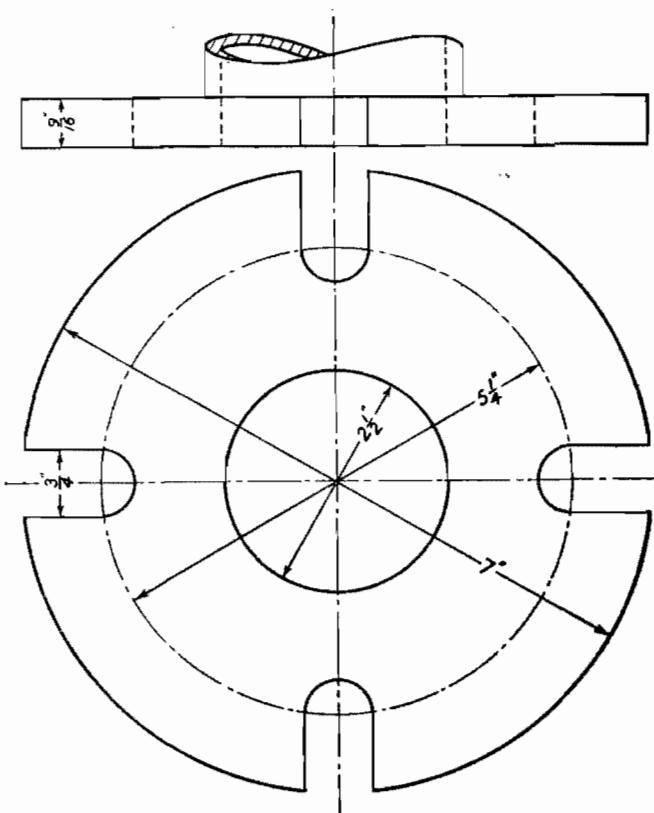
Brandblussers (draagbaar en nie-draagbaar)

(a) Alle brandblussers moet van goedgekeurde tipes en ontwerpe wees.

(i) Die inhoudsvermoë van vereiste draagbare vloeistofblussers moet hoogstens 3 gelling (of 13½ litres) en minstens 2 gelling (of 9 litres) wees. Ander blussers moet nie die ekwivalente draagbaarheid van die vloeistofblusser van 3 gelling (of 13½ litres) oorskry nie en hul blusvermoë moet nie minder

Outside diameter: 7 inches (or 178 millimetres).
 Inner diameter: 2½ inches (or 64 millimetres).
 Bolt circle diameter: 5½ inches (or 132 millimetres).
 Holes: 4 holes of $\frac{1}{8}$ inch (or 19 millimetres) diameter equidistantly placed, slotted to the flange periphery.
 Flange thickness: $\frac{1}{16}$ inch (or 14.5 millimetres) minimum.
 Bolts: 4, each of $\frac{1}{8}$ inch (or 16 millimetres) diameter, 2 inches (or 50 millimetres) in length.
 Flange surface: flat face.
 Material: any suited to 150 pounds per square inch (or 10.5 kilograms per square centimetre) service.
 Gasket: any suited to 150 pounds per square inch (or 10.5 kilograms per square centimetre) service.
 The connection shall be constructed of material suitable for 150 pounds per square inch (or 10.5 kilograms per square centimetre) service. The flange shall have a flat face on one side, and to the other shall have permanently attached thereto a coupling that will fit the ship's hydrants and hose. The connection shall be kept aboard the ship together with a gasket of any material suitable for 150 pounds per square inch (or 10.5 kilograms per square centimetre) service, together with four $\frac{1}{8}$ inch (or 16 millimetres) bolts, 2 inches (or 50 millimetres) in length and eight washers.

INTERNATIONAL SHORE CONNECTION (SHIP)



REGULATION 57

Fire Extinguishers (Portable and Non-Portable)

(a) All fire extinguishers shall be of approved types and designs.

(i) The capacity of required portable fluid extinguishers shall be not more than 3 gallons (or 13½ litres) and not less than 2 gallons (or 9 litres). Other extinguishers shall not be in excess of the equivalent portability of the 3 gallon (or 13½ litres) fluid extinguisher and shall not be less than the fire

wees as die brandblus-ekwivalent van 'n vloeistof-blusser van 2 gelling (of 9 liters) nie.
(ii) Die Administrasie moet die ekwivalente van brandblusser bepaal.
(b) Reserweladings moet voorsien word ooreenkomsdig die vereistes wat deur die Administrasie gespesifieer moet word.

(c) Brandblusser wat 'n blusmiddel bevat wat of van self of in gebruik gas afgee wat nadelig is vir persone, moet nie toegelaat word nie. Vir radiokamers en skakelborde kan blusser wat hoogstens 'n kwart gelling (of 1.136 liters) koolstoftetrachloried of soortgelyke blusmidels bevat, na goeddunke van die Administrasie toegelaat word, mits sodanige blusser bykomstig is by enige wat by hierdie deel van hierdie hoofstuk vereis word.

(d) Brandblusser moet periodiek ondersoek en aan sodanige toetse onderwerp word as wat die Administrasie vereis.

(e) Een van die draagbare brandblusser wat vir gebruik in 'n ruimte bedoel is, moet naby die ingang na daardie ruimte gebere word.

REGULASIE 58

Brandsmoorgas of stoom vir masjinerie- en vragsruimtes

(a) Waar daarvoor voorsiening gemaak word om gas of stoom vir die blus van brand in masjinerie- of vragsruimtes in te spuit, moet die nodige pype vir die tovoer van die gas of stoom toegerus word met kontrolekleppe of -krane wat so geplaas moet word dat hulle maklik toeganklik sal wees en nie geredelik deur die uitbrek van 'n brand buite bereik geplaas sal word nie. Hierdie kontrolekleppe of -krane moet so gemerk word dat dit duidelik is na watter afdelings die pype loop. Gesikte voorsiening moet gemaak word om te verhoed dat gas of stoom per ongeluk in 'n afdeling kom. Wanneer 'n vragsruimte vir beskerming teen brand met smoormiddels toegerus is en as passasiersruimte gebruik word, moet die smooraansluiting afgedig wees solank sodanige ruimte as passasiersruimte gebruik word.

(b) Die pype moet so ingerig word dat die brandsmorende gas of stoom doeltreffend versprei sal word. Wanneer stoom in groot ruime gebruik word, moet daar minstens twee pype wees, waarvan een in die voorste en die ander in die agterste gedeelte aangebring is; die pype moet laag genoeg na onder in die ruimte en so ver as moontlik van die huid af aangelê word.

(c) (i) Wanneer kooldioksied as die blusmiddel in vragsruimtes 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 vragsafdeling in die skip wat verseëlbaar is.

(ii) Wanneer kooldioksied gebruik word as 'n blusmiddel vir ruimtes wat ketels of masjinerie van die binnebrandtipe bevat, 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 kas insluit tot op die hoogte waar die horizontale oppervlakte van die kas 40 persent of minder as 40 persent is van dié van die betrokke ruimte; of

(2) 35 persent van die hele volume van die grootste ruimte met inbegrip van die kas:

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 tonnage; met dien verstande voorts dat, indien twee of meer van die ruimtes met ketels of masjinerie van die binnebrandtipe nie geheel en al afsonderlik van mekaar is nie, hulle geag word een afdeling uit te maak.

extinguishing equivalent of a 2 gallon (or 9 litres) fluid extinguisher.

(ii) The Administration shall determine the equivalents of fire extinguishers.

(b) Spare charges shall be provided in accordance with requirements to be specified by the Administration.

(c) Fire extinguishers containing an extinguishing medium which either itself or when in use gives off gases harmful to persons shall not be permitted. For radio rooms and switchboards extinguishers containing not more than 1 quart (1.136 litres) of carbon tetrachloride or similar media may be permitted at the discretion of the Administration subject to such extinguishers being additional to any required by this Part of this Chapter.

(d) Fire extinguishers shall be periodically examined and subjected to such tests as the Administration may require.

(e) One of the portable fire extinguishers intended for use in any space shall be stowed near the entrance to that space.

REGULATION 58

Fire smothering Gas or Steam for Machinery and Cargo Spaces

(a) Where provision is made for the injection of gas or steam into machinery or cargo spaces for fire extinguishing purposes, the necessary pipes for conveying the gas or steam shall be provided with control valves or cocks which shall be so placed that they will be easily accessible and not readily cut off from use by an outbreak of fire. These control valves or cocks shall be 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 or steam to any compartment. Where cargo spaces fitted with smothering for fire protection are used as passenger spaces the smothering connection shall be blanked during service as a passenger space.

(b) The piping shall be arranged so as to provide effective distribution of fire smothering gas or steam. Where steam is used in large holds there shall be at least two pipes, one of which shall be fitted in the forward part and one in the after part; the pipes shall be led well down in the space as remote as possible from the shell.

(c) (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 spaces containing boilers or internal combustion type machinery, 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 less or less of that of the space concerned; or

(2) 35 per cent of the entire volume of the largest space including the casing;

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 spaces containing boilers or internal combustion type machinery are not entirely separate they shall be considered as forming one compartment.

(iii) Wanneer kooldioksied gebruik word as 'n blusmiddel vir sowel vrugruimtes as ruimtes wat ketels of masjinerie van die binnebrandtipe bevat, hoef die hoeveelheid gas nie groter te wees as die maksimum wat of vir die grootste vraagafdeling of vir die masjinerieruimte vereis word nie.

(iv) Vir die toepassing van hierdie paragraaf moet die volume van die gas bereken word teen 9 kubieke voet per pond (of 0.56 kubieke meters per kilogram).

(v) Wanneer kooldioksied gebruik word as blusmiddel vir ruimtes wat ketels of masjinerie van die binnebrandtipe bevat, moet die vaste pyleidingstelsel sodanig wees dat 85 persent van die gas binne 2 minute in die ruimte uitgelaat kan word.

(d) Wanneer 'n generator wat trae gas produseer, gebruik word om smoorgas te verskaf in 'n vaste brandsmoorinstallasie vir vrugruimtes, moet dit 72 uur lank elke uur 'n volume vrye gas kan produseer wat minstens gelyk is aan 25 persent van die bruto volume van die grootste afdeling wat op hierdie wyse beskerm word.

(e) Wanneer stoom as die blusmiddel in vrugruimtes gebruik word, moet die ketel of ketels wat beskikbaar is vir die verskaffing van stoom, 'n verdampingsvermoë hê van minstens 1 pond stoom per uur vir elke 12 kubieke voet (of 1 kilogram vir elke 0.75 kubieke meter) van die bruto volume van die grootste afdeling in die skip. Bowendien moet die Administrasie die sekerheid gegee word dat stoom onmiddellik beskikbaar sal wees, nie eers beskikbaar sal word nadat onder die ketels vuur aangestek is nie en voortdurend tot aan die einde van die reis in die vereiste hoeveelheid verskaf kan word benewens enige stoom wat nodig is vir die normale vereistes van die skip, met inbegrip van aandrywing, en dat voorsiening gemaak is vir addisionele toevoerwater om aan hierdie vereiste te voldoen.

(f) Middels moet voorsien word om hoorbaar waarskuwing te gee van die vrylating van brandsmoorgas in 'n werkruimte.

REGULASIE 59

Outomatiese sproeierstelsels in passasierkskepe

(a) Enige outomatiese watersproeierstelsel vir beskerming teen brand wat ooreenkomsdig regulasie 51 van hierdie hoofstuk vereis word, moet te eniger tyd gereed wees om onmiddellik gebruik te word, en geen handeling van die kant van die bemanning moet nodig wees om dit in werking te stel nie. Waar so 'n stelsel aangebring is, moet dit onder die nodige druk gelaaai gehou word en moet daar voorsiening wees vir 'n standhoudende watervoorraad.

(b) Die stelsel moet onderverdeel word in 'n aantal sekções wat deur die Administrasie bepaal moet word, en outomatiese alarms moet verskaf word om op een of meer gesikte punte of poste die ontstaan of tekens van 'n brand en die posisie daarvan aan te dui.

(c) Die pomp of pompe wat die uitsputting uit die sproeikoppe moet bewerkstellig, moet so gekoppel wees dat hulle by 'n drukverlaging in die stelsel outomaties in werking sal kom. Daar moet vanaf die skip se hoofbrandweerpyp 'n verbinding wees wat toegerus is met 'n sluitbare skroefklep en 'n terugslagklep.

(d) Elke pomp moet in staat wees om 'n voldoende hoeveelheid water onder die toepaslike druk by die sproeikoppe te handhaaf terwyl daar soveel sproeikoppe in werking is as wat die Administrasie sal bepaal.

(e) Daar moet minstens twee kragbronne vir die see-waterpompe, lugkompressors en outomatiese alarms wees. Wanneer die kragbronne elektries is, moet daar 'n hoof-generator en 'n noodkragbron wees. Een toever moet vanaf die hoofskakelbord verkry word deur middel van afsonderlike voorleidings wat uitsluitlik vir daardie doel gereserveer is. Sulke voorleidings moet na 'n oorskakelaar

(iii) When carbon dioxide is used as an extinguishing medium both for cargo spaces and for spaces containing boilers or internal combustion type machinery the quantity of gas need not be more than the maximum required either for the largest cargo compartment or machinery space.

(iv) For the purpose of this paragraph the volume of gas shall be calculated at 9 cubic feet to the pound (or 0.56 cubic metres to the kilogramme).

(v) When carbon dioxide is used as the extinguishing medium for spaces containing boilers or internal combustion type machinery the fixed piping system shall be such that 85 per cent of the gas can be discharged into the space within 2 minutes.

(d) Where a generator producing inert gas is used to provide smothering gas in a fixed fire smothering installation for cargo spaces, it shall be capable of producing 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.

(e) When steam is used as the extinguishing medium in cargo spaces the boiler or boilers available for supplying steam shall have an evaporation of at least 1 pound of steam per hour for each 12 cubic feet (or 1 kilogramme for each 0.75 cubic metres) of the gross volume of the largest cargo compartment in the ship. Moreover the Administration shall be satisfied that steam will be available immediately and will not be dependent on the lighting of boilers and that it can be supplied continuously until the end of the voyage in the required quantity in addition to any steam necessary for the normal requirements of the ship including propulsion and that provision is made for extra feed water necessary to meet this requirement.

(f) Means shall be provided for giving audible warning of the release of fire smothering gas into any working space.

REGULATION 59

Automatic Sprinkler Systems in Passenger Ships

(a) Any automatic water sprinkler system for fire protection required in accordance with Regulation 51 of this Chapter shall be ready for immediate use at any time, and no action on the part of the crew shall be necessary to set it in operation. Where such a system is fitted, it shall be kept charged at the necessary pressure and shall have provision for a continuous supply of water.

(b) The system shall be subdivided into a number of sections to be decided by the Administration, and automatic alarms shall be provided to indicate at one or more suitable points or stations the occurrence or indication of fire, and its location.

(c) The pump or pumps to provide the discharge from sprinkler heads shall be so connected as to be brought into action automatically by a pressure drop in the system. There shall be a connection from the ship's fire main provided with a lockable screw down valve and a non-return valve.

(d) Each pump shall be capable of maintaining a sufficient supply of water at the appropriate pressure, at the sprinkler heads, while such number of sprinkler heads as will be decided by the Administration are in operation.

(e) There shall be not less than two sources of power supply for the sea water pumps, air compressors and automatic alarms. Where the sources of power are electrical, these shall be a main generator and an emergency source of power. One supply shall be taken from the main switchboard, by separate feeders reserved solely for that purpose. Such feeders shall be run to a change-over switch

naby die sproei-eenheid gelei word en die skakelaar moet gewoonlik gesluit gehou word na die voerleiding vanaf die noodskakelbord. Die oorskakelaar moet duidelik geëtiketteer word en geen ander skakelaar moet in hierdie voerleidings toegelaat word nie.

(f) Sproekoppe moet in werking kan kom by temperatuur wat deur die Administrasie bepaal sal word. Geeskiete middels moet verskaf word vir die periodieke toetsing van alle outomatiese inrigtings.

(g) Wanneer brandbeskermingsmetode II aangewend word in 'n passasierskip waarvan die bobou van aluminiumalooi is, moet die hele eenheid met inbegrip van die sproeipomp, tank en lugkompressor tot tevredenheid van die Administrasie geleë wees op 'n plek wat redelik verwyder is van die ketel- en masjinerieruimtes. Indien die voerleidings vanaf die noodgenerator na die sproei-eenheid deur 'n ruimte loop wat die gevær van brand inhou, moet die kabels van 'n brandvaste tipe wees.

REGULASIE 60

Vaste skuimbrandblusstelsel

(a) 'n Vereiste skuimbrandblusstelsel moet in staat wees om voldoende skuim uit te laat om die grootste oppervlakte waaraan oliebrandstof waarskynlik sal sprei, tot 'n diepte van 6 duim (of 15 sentimeters) te bedek.

(b) So 'n stelsel moet beheer word vanaf 'n maklik toeganklike plek of plekke wat buitekant die ruimte wat beskerm moet word, geleë is en nie geredelik deur die uitbreek van 'n brand afgesny sal word nie.

REGULASIE 61

Brandverklikstelsels

(a) Alle vereiste brandverklikstelsels moet in staat wees om outomatis die aanwesigheid of tekens en die posisie van 'n brand aan te dui. Aanwysers moet gesentraliseer wees of op die brug of in ander beheerposte wat regstreeks verbinding met die brug het. Die Administrasie kan toelaat dat die aanwysers oor verskeie poste versprei word.

(b) In passasierskepe moet elektriese uitrusting wat vir die werking van die vereiste brandverklikstelsels gebruik word, oor twee afsonderlike kragbronne beskik, waarvan een 'n noodkragbron moet wees.

(c) Die alarmstelsel moet by die hoofposte vermeld in paragraaf (a) van hierdie regulasie hoorbare sowel as sigbare seine in werking stel. Verklikstelsels vir vragrume hoeft nie hoorbare alarms te hé nie.

REGULASIE 62

Vaste drukwatersproeistelsels vir masjienkamers en ketelkamers

(a) Vaste drukwatersproeistelsels vir ketelkamers met oliegestookte ketels en masjienkamers met masjinerie van die binnebrandtipe moet toegerus word met sproekoppe van 'n goedgekeurde tipe.

(b) Die getal en plasing van die sproekoppe moet die goedkeuring van die Administrasie wegdra en sodanig wees dat in die ruimtes wat beskerm moet word, 'n doeltreffende verspreiding van water verseker word. Sproekoppe moet aangebring word bokant kimme, tenktoppe en ander oppervlaktes waaraan oliebrandstof kan versprei en ook bokant ander hoofbrandgevaarplekke in die ketel- en masjienkamers.

(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.

situated near to the sprinkler unit and the switch shall normally be kept closed to the feeder from the emergency switchboard. The change-over switch shall be clearly labelled and no other switch shall be permitted in these feeders.

(f) Sprinkler heads shall be required to operate at temperatures that will be decided by the Administration. Suitable means for the periodic testing of all automatic arrangements shall be provided.

(g) Where Method II of fire protection is employed in a passenger ship the superstructure of which is constructed in aluminium alloy, the whole unit including the sprinkler pump, tank and air compressor shall be situated to the satisfaction of the Administration in a position reasonably remote from the boiler and machinery spaces. If the feeders from the emergency generator to the sprinkler unit pass through any space constituting a fire risk the cables shall be of a fireproof type.

REGULATION 60

Fixed Froth Fire Extinguishing System

(a) Any required fixed froth fire extinguishing system shall be able to discharge a quantity of froth sufficient to cover to a depth of 6 inches (or 15 centimetres) the largest area over which oil fuel is liable to spread.

(b) Such a system shall be controlled from an easily accessible position or positions, outside the space to be protected, which will not be readily cut off by an outbreak of fire.

REGULATION 61

Fire Detection Systems

(a) All required fire detection systems shall be capable of automatically indicating the presence or indication of fire and also its location. Indicators shall be centralised either on the 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.

(b) 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.

(c) The alarm system shall operate both audible and visible signals at the main stations referred to in paragraph (a) of this Regulation. Detection systems for cargo spaces need not have audible alarms.

REGULATION 62

Fixed Pressure Water-spraying Systems for Engine Rooms and Boiler Rooms

(a) Fixed pressure water-spraying systems for boiler rooms with oil fired boilers and engine rooms with internal combustion type machinery 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 distribution of water in the spaces to be protected. Nozzles shall be fitted above bilges, tank tops and other areas over which oil fuel is liable to spread and also above other main fire hazards in the boiler and engine rooms.

(c) The system may be divided into sections, the distribution manifolds 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) 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 werkung gestel kan word deur 'n brand in die ruimte of ruimtes wat deur die watersproei-stelsel beskerm word nie.

(f) Spesiale voorschryfmaatreëls moet getref word om te verhoed dat die sproeikoppe deur onsuwerheid in die water of die verroesting van die pype, sproeikoppe, kleppe en pomp verstop word.

REGULASIE 63

Uitrustings vir brandweermanne

(a) 'n Brandweermansuitrusting moet bestaan uit 'n asemhaalapparaat, 'n reddingslyn, 'n veiligheidslamp en 'n byl, soos in hierdie regulasie beskryf.

(b) 'n Asemhaalapparaat moet van 'n goedgekeurde tipe wees en kan een van die volgende 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 120 voet (of 36 meters) nodig sou wees ten einde aan die bepalings van hierdie subparaagraaf 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.

(c) Aan die gordel of tuig van elke asemhaalapparaat moet 'n lang en sterk genoeg brandvaste reddingslyn deur middel van 'n springhaak vasgeheg word.

(d) 'n Veiligheidslamp (handlantern) moet van 'n goed-gekeurde tipe wees. Sodanige veiligheidslampe moet elektriese lampe wees en moet minstens drie uur lank kan brand.

(e) Die byl moet die goedkeuring van die Administrasie wegdra.

REGULASIE 64

Vereistes vir passasierskepe

(a) Rondelediens en opsporing

(i) Daar moet in alle passasierskepe 'n doeltreffende rondelediens 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 patroleerders toeganklik is nie, moet 'n goedgekeurde brandalarm- of brandverklik-stelsel verskaf word wat outomaties op een of meer geskikte punte van poste waar dit die gouste deur offisiere en bemanning opgemerk kan word, 'n aanduiding sal gee van die aanwesigheid of tekens van 'n brand en van die plek waar dit voorkom, behalwe wanneer 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.

(b) Brandpompe en watertoervoerlyne

'n Passasierskip moet toegerus word met brandpompe, watertoervoerlyne, brandkrane en slange wat aan die be-

(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) Special 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 63

Fireman's Outfit

(a) A fireman's outfit shall consist of a breathing apparatus, a lifeline, a safety lamp and an axe, as described in this Regulation.

(b) A breathing apparatus shall be of an approved type and 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 sub-paragraph, an air hose exceeding 120 feet (or 36 metres) in length would be necessary, a self-contained breathing apparatus shall be substituted or provided in addition as determined by the Administration.

(ii) A self-contained breathing apparatus which shall be capable of functioning for a period of time to be determined by the Administration.

(c) Each breathing apparatus shall have attached to its belt or harness, by means of a snaphook, a fireproof lifeline of sufficient length and strength.

(d) A safety lamp (hand lantern) shall be of an approved type. Such safety lamps shall be electric, and shall have a minimum burning period of three hours.

(e) The axe shall be to the satisfaction of the Administration.

REGULATION 64

Requirements for Passenger Ships

(a) Patrols and Detection

(i) An efficient patrol system shall be maintained in all passenger 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 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, where it can be most quickly observed by officers and crew, 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.

(b) Fire Pumps and Water Service Pipes

A passenger ship shall be provided with fire pumps, water service pipes, hydrants and hoses complying with

palings van regulasie 56 van hierdie hoofstuk en aan die volgende vereistes voldoen:—

- (i) 'n Passasierkip van 4,000 ton bruto tonnemaat en meer moet met minstens drie onafhanklik aangedrewe brandpompe en elke passasierkip van minder as 4,000 ton bruto tonnemaat, met minstens twee sodanige brandpompe toegerus word.
- (ii) In 'n passasierkip 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 werkking sal stel nie.
- (iii) In 'n passasierkip 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 Passasierkip 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 56 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 56 van hierdie hoofstuk voldoen kan word wanneer alle waterdige deure en alle deure in vertikale hoofsonebekotte toe is.

(iii) In 'n passasierkip moet die inrigtings sodanig wees dat minstens twee strale water enige deel van enige vragsruimte kan bykom wanneer dié leeg is.

(iv) Alle brandkrane in die masjinerieruimtes van passasierkepe met oliegestookte ketels of met aandryfmasjinerie van die binnebrandtipe moet toegerus wees met slange wat, benewens die spuitstukke vereis by paragraaf (f) van regulasie 56 van hierdie hoofstuk, ook spuitstukke geskik om water op olie te sproei of anders tweedoelspuitstukke het.

(d) *Internasionale landaansluiting*

(i) 'n Passasierkip van 1,000 ton bruto tonnemaat en meer moet toegerus word met minstens een internasionale landaansluiting wat aan die bepaling van regulasie 56 van hierdie hoofstuk voldoen.

(ii) Fasilitete 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 Passasierkip moet in akkommodasie- en diensruimtes toegerus word met sodanige goedgekeurde draagbare brandblussers as wat die Administrasie gepas en voldoende ag.

(f) *Vaste brandsmoorinrigtings in vragsruimtes*

(i) Die vragsruimtes van passasierkepe van 1,000 ton bruto tonnemaat en meer moet beskerm word deur 'n vaste brandsmoorgasstelsel wat aan die bepaling van regulasie 58 van hierdie hoofstuk voldoen.

(ii) Wanneer tot tevredenheid van die Administrasie getoon word dat 'n passasierkip gebruik word op reise wat so kort duur dat dit onredelik sou wees om die bepaling van subparagraaf (i) van hierdie paragraaf toe te pas en ook in die geval van passasierkepe van minder as 1,000 ton bruto tonnemaat moet die inrigtings in vragsruimtes die goedkeuring van die Administrasie wegdra.

Regulation 56 of this Chapter and with the following requirements:—

- (i) A passenger ship of 4,000 tons gross tonnage and upwards shall be provided with at least three independently driven fire pumps and every passenger ship of less than 4,000 tons gross tonnage with at least two such fire pumps.
- (ii) In a passenger 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 passenger 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) A passenger ship shall be provided with such number of fire hoses as the Administration may deem sufficient. There shall be at least one fire hose for each of the hydrants required by paragraph (d) of Regulation 56 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 56 of this Chapter may be complied with when all watertight doors and all doors in main vertical zone bulkheads are closed.

(iii) In a passenger 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 hydrants in the machinery spaces of passenger ships with oil-fired boilers or internal combustion type propelling machinery shall be fitted with hoses having in addition to the nozzles required in paragraph (f) of Regulation 56 of this Chapter nozzles suitable for spraying water on oil, or alternatively dual purpose nozzles.

(d) *International Shore Connection*

(i) A passenger ship of 1,000 tons gross tonnage and upwards shall be provided with at least one international shore connection, complying with Regulation 56 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*

A passenger 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 Smothering Arrangements in Cargo Spaces*

(i) The cargo spaces of passenger ships of 1,000 tons gross tonnage and upwards shall be protected by a fixed fire smothering gas system complying with Regulation 58 of this Chapter.

(ii) Where it is shown to the satisfaction of the Administration that a passenger ship is engaged on voyages of such short duration that it would be unreasonable to apply the requirements of sub-paragraph (i) of this paragraph and also in passenger ships of less than 1,000 tons gross tonnage, the arrangements in cargo spaces shall be to the satisfaction of the Administration.

(g) *Brandblustoestelle in ketelkamers, ens.*

In passasierskepe moet die volgende inrigtings aangebring word op plekke waar oliegestookte hoof- of hulpketels geleë is, of in ruimtes wat oliebrandstofeenhede of besinktenks bevat:—

- (i) Een van die volgende vaste brandblusinstallasies moet aangebring word:—

- (1) 'n drukwatersproeistelsel wat aan die bepalings van regulasie 62 van hierdie hoofstuk voldoen;
- (2) 'n brandsmoorgasinstallasie wat aan die bepalings van regulasie 58 van hierdie hoofstuk voldoen;
- (3) 'n vaste skuiminstallasie wat aan die bepalings van regulasie 60 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 indien die masjien- en ketelkamers nie geheel en al afsonderlik is nie, of indien brandolie vanaf die ketelkamer na die masjienkamer-kimme 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 skuim-tipeblusser met 'n inhoudsvermoë van minstens 30 gelling (of 136 liters) of die ekwivalent daarvan in elke ketelkamer wees. Hierdie blussers moet toegepas wees met slang 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 hoeveelheid 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 masjienerie van die binnebrandtipe bevat.*

Wanneer masjiene van die binnebrandtipe gebruik word of (1) vir hoofaandrywing, of (2) vir hulpdoleindes wat in verband staan met 'n totale krag van minstens 1,000 r.p.k. moet 'n passasierskip met die volgende inrigtings toegerus word:—

- (i) Daar moet een van die vaste inrigtings wees wat by subparagraaf (g) (i) van hierdie regulasie vereis word.

- (ii) In elke masjienuimte moet daar een goedgekeurde skuimtipe blusser wees met 'n inhoudsvermoë van minstens 10 gelling (of 45 liters) of die ekwivalent daarvan, en ook een goedgekeurde draagbare skuimtipe blusser vir elke 1,000 r.p.k. 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.

(g) *Fire Extinguishing Appliances in Boiler Rooms, &c.*

Where main or auxiliary oil-fired boilers are situated, or in spaces containing oil fuel units or settling tanks, a passenger 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 62 of this Chapter;
- (2) A fire smothering gas installation complying with Regulation 58 of this Chapter;
- (3) A fixed froth installation complying with Regulation 60 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 30 gallons (or 136 litres) 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 (1) for main propulsion or (2) for auxiliary purposes associated with a total power not less than 1,000 b.h.p., a passenger ship shall be provided with the following arrangements:—

- (i) There shall be one of the fixed arrangements required by sub-paragraph (g) (i) of this Regulation.

- (ii) There shall be in each engine space one approved froth type extinguisher of not less than 10 gallons (or 45 litres) capacity or equivalent and also one approved portable froth type extinguisher for each 1,000 b.h.p. of the engines 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.

(j) Uitrusting vir brandweermanne

Aan bord van 'n passasierskip moet daar minstens twee brandweermansuitrustings wees wat voldoen aan die vereistes van regulasie 63 van hierdie hoofstuk. Op 'n skip van meer as 10,000 ton bruto tonnemaat moet daar minstens drie en op 'n skip van 20,000 ton bruto tonnemaat minstens vier uitrustings wees. Hierdie uitrustings moet gereed vir gebruik gehou word op plekke wat ver van mekaar geleë is.

REGULASIE 65**Vereistes vir vragskepe****(a) Toepassing**

In gevalle waar kleiner vragskepe waarop die huidige regulasies van toepassing is, uit hoofde van beperkings op minimum brutotonnemaat nie deur spesifieke vereistes gedek word nie, moet die inrigtings vir die ontdekking en bestryding van brand die goedkeuring van die Administrasie wegdra.

(b) Brandpompe en watertoevoerpype

'n Vragskip moet toegerus word met brandpompe, watertoevoerpype, brandkrane en slange wat aan die bepalings van regulasie 56 van hierdie hoofstuk en aan die volgende vereistes voldoen:—

(i) 'n Vragskip van 1,000 ton bruto tonnemaat en meer moet toegerus word met twee onafhanklik aangedrewe kragpompe.

(ii) Indien 'n brand in 'n enkele afdeling van 'n vragskip van 1,000 ton bruto tonnemaat en meer al die pompe buite werking kan stel, moet daar 'n alternatiewe middel wees om water te verskaf vir brandbestryding. In 'n vragskip van 2,000 ton bruto tonnemaat en meer moet hierdie alternatiewe middel 'n vaste noodpomp wees wat onafhanklik aangedryf word. Hierdie noodpomp moet in staat wees om twee strale water tot tevredenheid van die Administrasie te verskaf.

(c) Brandkrane en slange en sputstukke

(i) In vragskepe van 1,000 ton bruto tonnemaat en meer moet daar benewens 'n reserwebrandslang ook vir elke 100 voet (of 30 meters) van die skip se lengte een brandslang, volledig met koppeling en sputstuk, verskaf word, maar in geen geval mag daar minder as altesaam vyf wees nie. Hierdie getal sluit nie in slange wat in masjien- of ketelkamer vereis word nie. Die Administrasie kan die aantal slange wat vereis word, vergroot ten einde te verseker dat daar met inagneming van die tipe skip en die aard van die handel waarvoor die skip gebruik word, te alle tye voldoende slange beskikbaar en bereikbaar is.

(ii) In akkommodasie-, diens- en masjinerieruimtes moet die getal en posisies van brandkrane sodanig wees dat aan die vereistes van paragraaf (d) van regulasie 56 van hierdie hoofstuk voldoen word.

(iii) In 'n vragskip moet die inrigtings sodanig wees dat minstens twee strale water enige deel van enige vragruimte kan bykom wanneer dié leeg is.

(iv) Alle brandkrane in die masjinerieruimtes van vragskepe met oliestookte ketels of met aandryfmasjinerie van die binnebrandtipe moet toegerus wees met slange wat, benewens die sputstukke vereis by paragraaf (f) van regulasie 56 van hierdie hoofstuk, ook sputstukke geskik om water op olie te sproei of anders tweedoelsputstukke het.

(d) Internasionale landaansluiting

(i) 'n Vragskip van 1,000 ton bruto tonnemaat en meer moet toegerus word met minstens een internasionale landaansluiting wat aan die bepalings van regulasie 56 van hierdie hoofstuk voldoen.

(j) Fireman's Outfits

A passenger ship shall carry at least two fireman's outfits each complying with the requirements of Regulation 63 of this Chapter. Where the ship exceeds 10,000 tons gross tonnage at least three outfits shall be carried and where it exceeds 20,000 tons gross tonnage at least four outfits shall be carried. These outfits shall be kept in widely separated places ready for use.

REGULATION 65**Requirements for Cargo Ships****(a) Application**

Where by virtue of minimum gross tonnage limits smaller cargo ships to which the present Regulations apply are not covered by specific requirements the arrangements for fire detection and extinction shall be to the satisfaction of the Administration.

(b) Fire Pumps and Water Service Pipes

A cargo ship shall be provided with fire pumps, water service pipes, hydrants and hoses complying with Regulation 56 of this Chapter and with the following requirements:—

(i) A cargo ship of 1,000 tons gross tonnage and upwards shall be provided with two independently driven power pumps.

(ii) In a cargo 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 cargo 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 cargo ships 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 100 feet (or 30 metres) 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.

(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 56 of this Chapter.

(iii) In a cargo 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 hydrants in the machinery spaces of cargo ships with oil fired boilers or internal combustion type propelling machinery shall be fitted with hoses having in addition to the nozzles required in paragraph (f) of Regulation 56 of this Chapter nozzles suitable for spraying water on oil, or alternatively dual purpose nozzles.

(d) International Shore Connection

(i) A cargo ship of 1,000 tons gross tonnage and upwards shall be provided with at least one international shore connection, complying with Regulation 56 of this Chapter.

(ii) Fasilitete moet beskikbaar wees om dit moontlik te maak dat sodanige aansluiting aan weerskante van die skip gebruik word.

(e) *Draagbare brandblussers vir akkommodasie- en diensruimtes*

'n Vragskip moet in akkommodasie- en diensruimtes toegerus word met sodanige goedgekeurde draagbare brandblussers as wat die Administrasie gepas en voldoende ag, en daar mag in elk geval nie minder as vyf vir skepe van 1,000 ton bruto tonnemaat en meer wees nie.

(f) *Vaste brandsmoorinrigtings in vragsruimtes*

(i) Die vragsruimtes van skepe van 2,000 ton bruto tonnemaat en meer moet beskerm word deur 'n vaste brandsmoorstelsel wat aan die bepalings van regulasie 58 van hierdie hoofstuk voldoen. Die Administrasie kan toelaat dat stoom in plaas van smoorgas gebruik word indien die inrigtings aan die bepalings van paragraaf (e) van regulasie 58 van hierdie hoofstuk voldoen.

(ii) In tenkskepe kan installasies wat skuim binne of buite na die tenks uitlaat, as 'n gesikte alternatief vir smoorgas of stoom aanvaar word. Die besonderhede van sodanige installasies moet die goedkeuring van die Administrasie wegdra.

(iii) Die Administrasie kan die vragsruime van enige skip (uitgesonderd die tenks van 'n tenkskip) van die vereistes van subparagrawe (i) en (ii) van hierdie paragraaf vrystel:—

- (1) indien hulle toegerus is met staalluikdeksels en doeltreffende middels om alle ventilators en ander openings na die ruime te sluit;
- (2) indien die skip uitsluitlik gebou en bedoel is vir die vervoer van vragte soos erts, steenkool of graan;
- (3) indien tot tevredenheid van die Administrasie getoon word dat die skip gebruik word op reise van so 'n korte duur dat dit onredelik sou wees om die vereiste toe te pas.

(iv) Benewens aan die vereistes van hierdie regulasie te voldoen, moet elke vragskip aan die volgende vereistes voldoen terwyl hy ploftownwe vervoer van 'n aard of in 'n hoeveelheid wat ooreenkomsdig regulasie 8 van hoofstuk VII van hierdie regulasies nie in passasier-skepe vervoer mag word nie:—

- (1) Stoom mag nie vir brandsmoordoeleindes gebruik word in 'n afdeling wat ploftownwe bevat nie. Vir die doeleindest van hierdie subparagraaf beteken „afdeling“ alle ruimtes tussen twee aangrensende permanente beskotte en sluit dit in die onderruum en alle vragsruimtes daarbo. Die gehele skulde-ruimte wat nie deur staalbeskotte onderverdeel is nie en waarvan die openings deur staalsluitplate toegemaak kan word, moet vir die doeleindest van hierdie subparagraaf as 'n afdeling beskou word. Wanneer staalbeskotte met openings wat deur staal-sluitplate toegemaak word, aangebring word, kan die ingeslotte ruimtes in die skuldek as deel van die afdeling of afdelings daaronder beskou word.
- (2) Daarbenevens moet daar in elke afdeling wat ploftownwe bevat, en in aangrensende vragafdelings 'n rook- of brandverklikstelsel in elke vragsruimte verskaf word.

(g) *Brandblustoestelle in ketelkamers, ens.*

In 'n vragskip van 1,000 ton bruto tonnemaat en meer moet die volgende inrigtings verskaf word op plekke waar oliegestookte hoof- of hulpketels geleë is of in ruimtes wat oliebrandstofeenhede of besinktenks bevat:—

- (i) Een van die volgende vaste brandblusinstallasies moet aangebring word:

(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*

A cargo 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 Smothering Arrangements in Cargo Spaces*

(i) Cargo spaces of ships of 2,000 tons gross tonnage and upwards shall be protected by a fixed fire smothering system complying with Regulation 58 of this Chapter. The Administration may allow the use of steam in lieu of smothering gas if the arrangements comply with paragraph (e) of Regulation 58 of this Chapter.

(ii) In tankers, installations discharging froth internally or externally to the tanks may be accepted as a suitable alternative to smothering gas or steam. The details of such installations shall be to the satisfaction of the Administration.

(iii) The Administration may exempt from the requirements of sub-paragraphs (i) and (ii) 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;
- (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.

(iv) Every cargo 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 8 of Chapter VII of these Regulations comply with the following requirements:—

- (1) Steam shall not be used for fire smothering purposes in any compartment containing explosives. For the purposes of this sub-paragraph, "compartment" means all spaces contained between two adjacent permanent bulkheads and includes the lower hold and all cargo spaces above it. The whole of any shelter deck space not subdivided by steel bulkheads the openings of which can be closed by steel closing plates shall, for the purposes of this sub-paragraph, be considered as a compartment. Where steel bulkheads with openings closed by steel closing plates are fitted, the enclosed spaces in the shelter deck may be considered as part of the compartment or compartments below.
- (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.

(g) *Fire Extinguishing Appliances in Boiler Rooms, &c.*

Where main or auxiliary oil fired boilers are situated, or in spaces containing oil fuel units or settling tanks, a cargo 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) 'n drukwatersproeistelsel wat aan die bepalings van regulasie 62 van hierdie hoofstuk voldoen;
 (2) 'n brandsmoorgasinstallasie wat aan die bepalings van regulasie 58 van hierdie hoofstuk voldoen;
 (3) 'n vaste skuiminstallasie wat aan die bepalings van regulasie 60 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 waar oliebrandstof 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. Daarbenewens moet daar vir elke brander minstens een blusser van dieselfde beskrywing met 'n inhoudsvermoë van 2 gelling (of 9 liters) wees; met dien verstande dat die totale inhoudsvermoë van die addisionele blusser of blussers nie 10 gelling (of 45 liters) vir 'n enkele ketelkamer hoef te oorskryf nie.
 (iii) In elke stookruimte moet daar 'n houer wees met sand, saagsels deurtrokke van soda of ander goedgekeurde droë materiaal en wel in sodanige hoeveelheid 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

Wanneer masjiene van die binnebrandtipe gebruik word of (1) as hoofaandrywingsmasjinerie of (2) vir hulpdoel-eindes wat in verband staan met 'n totale krag van minstens 1,000 r.p.k., moet 'n vragskip van 1,000 ton bruto tonnemaat en meer met die volgende inrigtings toegerus word:—

- (i) Daar moet een van die vaste inrigtings wees wat by subparagraph (g) (i) van hierdie regulasie vereis word.
 (ii) In elke masjienuimte moet daar een goedgekeurde skuimtipe blusser wees met 'n inhoudsvermoë van minstens 10 gelling (of 45 liters) of die ekwivalent daarvan, en ook een goedgekeurde draagbare skuimblusser vir elke 1,000 r.p.k., 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 waterdige beskotte van ketelkamers geskei is.

(j) Uitrusting vir brandweermanne

Aan boord van 'n vragskip moet daar minstens een brandweermansuitrusting wees wat voldoen aan die vereistes van regulasie 63 van hierdie hoofstuk.

REGULASIE 66

Geredelike beskikbaarheid van brandbestrydingstoestelle

Brandblustoestellie in nuwe en bestaande passasierskepe en vragskepe moet te alle tye gedurende die reis in goeie orde en vir onmiddellike gebruik beskikbaar gehou word.

- (1) A pressure water spraying system complying with Regulation 62 of this Chapter;
 (2) A fire smothering gas installation complying with Regulation 58 of this Chapter;
 (3) A fixed froth installation complying with Regulation 60 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 2 gallons (or 9 litres) for each burner, provided that the total capacity of the additional extinguisher or extinguishers need not exceed 10 gallons (or 45 litres) for any one boiler room.
 (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 (1) for main propulsion machinery, or (2) for auxiliary purposes associated with a total power not less than 1,000 b.h.p., a cargo 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 10 gallons (or 45 litres) capacity or equivalent and also one approved portable froth extinguisher for each 1,000 b.h.p. of the engines 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.

(j) Fireman's Outfit

A cargo ship shall carry at least one fireman's outfit complying with the requirements of Regulation 63 of this Chapter.

REGULATION 66

Ready Availability of Fire Fighting Appliances

Fire extinguishing appliances in new and existing passenger ships and cargo ships shall be kept in good order and available for immediate use at all times during the voyage.

REGULASIE 67

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.

DEEL F—ALGEMENE VOORSORGSMATREËLS TEEN BRAND

(Deel F is op Passasier-skepe en Vragskepe van Toepassing.)

REGULASIE 68

Nooduitgange

(a) Passasier-skepe.

(i) In en vanaf alle passasier- 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 voorsorgsmaatreëls voldoen word:—

- (1) Onderkant die beskotdek, moet daar vir elke waterdige afdeling of soortgelyke beperkte ruimte of groep ruimtes twee nooduitgange verskaf word, waarvan minstens een onafhanklik van waterdige deure moet wees. Met behoorlike inagneming van die aard en ligging van die betrokke ruimtes en van die getal persone wat gewoonlik daar gehuisves mag word of werkzaam mag wees, kan die Administrasie van een van hierdie nooduitgange afseien.
- (2) 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.
- (3) Minstens een van die nooduitgange moet wees langs 'n ingeslotte 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 onafgebrokeheid van die trappe moet die goedkeuring van die Administrasie wegsdra.

(ii) In masjinerieruimtes moet daar vanaf elke masjineriekamer, astunnel en ketelkamer twee nooduitgange verskaf word, waarvan een 'n waterdige deur kan wees. In masjinerieruimtes, waar geen waterdige 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 van minder as 2,000 ton bruto tonnemaat, kan die Administrasie met behoorlike inagneming van die wydte en die disposisie van die kaste, van hierdie vereiste afsien.

(b) Vragskepe.

(i) In en vanaf alle bemannings- en passasierruimtes 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.

(ii) Die vereistes van subparagraaf (a) (ii) van hierdie regulasie is van toepassing in masjinerieruimtes.

REGULATION 67

Acceptance of Substitutes

Where in this Part of this Chapter any special type of appliance, apparatus, extinguishing medium or arrangement is specified, any other type of appliance, &c. may be allowed, provided the Administration is satisfied that it is not less effective.

PART F.—GENERAL FIRE PRECAUTIONS

(Part F applies to passenger ships and cargo ships)

REGULATION 68

Means of Escape

(a) Passenger Ships

(i) 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:—

- (1) 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;
- (2) 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;
- (3) 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.

(ii) 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.

(b) Cargo Ships

(i) 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.

(ii) In machinery spaces, the requirements of subparagraph (a) (ii) of this Regulation shall apply.

REGULASIE 69

Middels om masjinerie tot stilstand te bring en om oliebrandstofsuigpype af te sluit

(a) Middels moet verskaf word om ventilasiewaaiers wat masjinerie- en vragsruimtes bedien tot stilstand te bring en om alle deuropenings, lugskagte, ringvormige ruimtes om skoorstene en ander openings na sulke ruimtes toe te maak. Hierdie middels moet in die geval van brand buite sodanige ruimtes vandaan bedien kan word.

(b) Masjinerie wat geforseerde trek-waaiers en suigwaaiers, oliebrandstofoorvoerpompe, oliebrandstofeenheidspompe en ander soortgelyke brandstofpompe aandryf, moet met afstandsbeheermiddels buite die betrokke ruimte toegerus word sodat hulle tot stilstand gebring kan word indien 'n brand ontstaan in die ruimte waarin hulle geleë is.

(c) Elke oliebrandstofsuigpyp vanaf 'n oppaar-, besink- of daelikse diensten wat bokant die dubbele boom geleë is, moet toegerus word met 'n kraan of klep wat buite die betrokke ruimte vandaan toegemaak kan word indien 'n brand ontstaan in die ruimte waarin sodanige tanks geleë is. In die besondere geval van dieptentanks wat in 'n as- of pyptunnel geleë is, moet kleppe aan die tanks aangebring word, maar beheer in die geval van brand kan bewerkstellig word deur middel van 'n addisionele klep aan die pyplyn of -lyne buite die tonnel of tonnels.

REGULASIE 70

Brandbeheerplanne

In enige passasierskip en, vir sover toepaslik, in enige vragskip moet daar vir die leiding van die skip se offisiere algemene inrigtingsplanne blywend vertoon word wat duidelik vir elke dek aantoon die beheerposte, die verskillende brandseksies omsluit deur brandvaste beskotte, die seksies omsluit deur brandvertragende beskotte (indien daar is), tesame met besonderhede van die brandalarms, verklikstelsels, die sproeierinstallasie (indien daar is), die brandblustoestelle, die toegange tot die verskillende afdelings, dekke, ens., en die ventilasiestelsel met inbegrip van die hoofwaaierbeheermiddels, die posisies van dempers en die identifikasienummers van die ventilasiewaaiers wat elke seksie bedien. As alternatief en na goedvindie deur die Administrasie kan bogenoemde besonderhede uiteengesit word in 'n boekie waarvan 'n eksemplaar aan elke offisier verskaf moet word en een eksemplaar te alle tye op 'n toeganklike plek aan boord beskikbaar moet wees. Die planne en boekies moet altyd bygewerk word en enige wysigings moet so spoedig doenlik daarop of daarin aangebring word.

HOOFSTUK III—REDDINGSTOESTELLE, ENS.

REGULASIE 1

Toepassing

(a) Behalwe wanneer uitdruklik anders bepaal word, is hierdie hoofstuk as volg van toepassing op nuwe skepe wat vir internasionale reise gebruik word:—

Deel A—Passasiersskepe en vragskepe.

Deel B—Passasiersskepe.

Deel C—Vragskepe.

(b) In die geval van bestaande skepe wat vir internasionale reise gebruik word en nie reeds aan die bepaling van hierdie hoofstuk betreffende nuwe skepe voldoen nie, moet die maatreëls wat op elke skip getref moet word, deur die Administrasie oorweeg word met die doel om te verseker dat, vir sover doenlik en redelik en so spoedig moontlik wesenlik aan die voorskrifte van hierdie hoofstuk voldoen word. Die voorbehoudsbepaling

REGULATION 69

Means for Stopping Machinery and for Shutting Off Oil Fuel Suction Pipes

(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 pipe line or lines outside the tunnel or tunnels.

REGULATION 70

Fire Control Plans

In any passenger ship, and, as far as applicable in any cargo ship, there shall be permanently exhibited 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 fire-resisting bulkheads, the sections enclosed by fire-retarding bulkheads (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, &c., and the ventilating system including particulars of the master fan controls, the positions 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.

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 and which do not already comply with the provisions of this Chapter 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 this Chapter. The proviso

van subparagraaf (b) (i) van regulasie 27 van hierdie hoofstuk kan egter alleen op bestaande skepe toegepas word indien—

- (i) 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 ooreenkomsdig die bepalings van paragraaf (b) van regulasie 27 aan boord moet wees, aan die voorskrifte van of regulasie 15 of regulasie 16 en van regulasie 17 van hierdie hoofstuk voldoen; en
- (iii) die totale getal persone aan boord nie vergroot word as gevolg van die verskaffing van reddingsvlotte nie.

DEEL A—ALGEMEEN

(Deel A is op sowel passasierskepe as vragskepe van toepassing.)

REGULASIE 2

Definisies

(a) Vir die toepassing van hierdie hoofstuk beteken die uitdrukking „kort internasionale reis” ‘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) Vir die toepassing van hierdie hoofstuk beteken die uitdrukking „reddingsvlot” ‘n reddingsvlot wat of aan regulasie 15 of aan regulasie 16 van hierdie hoofstuk voldoen.

(c) Vir die toepassing van hierdie hoofstuk beteken die uitdrukking „goedgekeurde tewaterlatingsstoestel” ‘n stoestel 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) Vir die toepassing van hierdie hoofstuk beteken die uitdrukking „gediplomeerde reddingsbootman” ‘n lid van die bemanning wat die houer is van ‘n bevoegdheidsertifikaat wat ooreenkomsdig regulasie 32 van hierdie hoofstuk uitgereik is.

(e) Vir die toepassing van hierdie hoofstuk beteken die uitdrukking „drywende toestel” dryfuitrusting (behalwe reddingsbote, reddingsvlotte, reddingsboeie en reddingsbuise) wat ontwerp is om ‘n gespesifieerde 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 op internasionale reise vir spesiale vaarte gebruik word vir die vervoer van groot getalle passasiers vir wie daar nie slaapbanke is nie, soos in die geval van ‘n pelgrimsvaart, kan die Administrasie, indien hy daarvan oortuig is dat die vereistes van hierdie hoofstuk nie toegepas kan word nie, sulke skepe op die volgende voorwaardes van daardie vereistes vrystel:—

to sub-paragraph (b) (i) of Regulation 27 of this Chapter may, however, be applied to existing ships 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
- (iii) the total number of persons on board shall not be increased as the result of the provision of liferafts.

PART A.—GENERAL

(Part A applies to both passenger ships and cargo ships)

REGULATION 2

Definitions

(a) For the purpose of this Chapter the expression “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) For the purposes of this Chapter, the expression “liferaft” means a liferaft complying with either Regulation 15 or Regulation 16 of this Chapter.

(c) For the purposes of this Chapter, the expression “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) For the purposes of this Chapter, the expression “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) For the purposes of this Chapter, the expression “buoyant apparatus” means flotation equipment (other than lifeboats, liferafts, lifebuoys and lifejackets) 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 engaged on international voyages which are employed in the carriage of large numbers of unberthed passengers in special trades, such, for example, as the pilgrim trade, the Administration, if satisfied that it is impracticable to enforce compliance with the requirements of this Chapter, may exempt such ships from those requirements on the following conditions—

- (i) Die volste voorsiening wat onder die omstandighede van die reise moontlik is, moet in verband met reddingsbote en ander reddingsuitrusting en beskerming teen brand gemaak word.
- (ii) Al sulke bote en toestelle moet binne die bedoeling van regulasie 4 van hierdie hoofstuk geredelik beskikbaar wees.
- (iii) Daar moet vir elkeen aan boord 'n reddingsbuis wees.
- (iv) Stapte moet gedoen word om algemene reëls op te stel wat vir die bepaalde omstandighede van hierdie vaarte moet geld. Sulke reëls moet opgestel word in oorelog met sodanige ander Kontrakterende Regerings, indien enige, as wat direkte belang mag hê by die vervoer van sulke passasiers op sulke vaarte.

Nieteenstaande enige bepalings van die huidige Konvensie, bly die Simla-reëls, 1931, van krag tussen die partye by daardie Reëls totdat die reëls wat opgestel ingevolge subparagraaf (b) (iv) van hierdie regulasie in werking tree.

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 geskikbaar te wees, moet die reddingsbote, reddingsvlotte en drywende toestelle aan die volgende voorwaarde voldoen:—

- (i) Hulle moet selfs onder ongunstige omstandighede met betrekking tot kop- of stuurlas en met 'n slag sy 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 sulke afmetings hê dat hulle voldoende stabilitet 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 stabilitet te behou wanneer hulle aan die see blootgestel is en hul volle kwota persone en uitrusting aan boord het.

(b) (i) Alle 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 te-waterlating 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.

- (i) that the fullest provision which the circumstances of the trade will permit shall be made in the matter of lifeboats and other life-saving appliances and fire protection;
- (ii) that all such boats and appliances shall be readily available within the meaning of Regulation 4 of this Chapter;
- (iii) that a lifejacket shall be provided for every person on board; and
- (iv) that steps shall be taken to formulate general rules which shall be applicable to the particular circumstances of these trades. Such rules shall be formulated in concert with such other Contracting Governments, if any, as may be directly interested in the carriage of such passengers in such trades.

Notwithstanding any provisions of the present Convention the Simla Rules, 1931, shall continue in force as between the Parties to those Rules until the rules formulated under sub-paragraph (b) (iv) of this Regulation come into force.

REGULATION 4

Ready Availability of Lifeboats, Liferafts and Buoyant Apparatus

(a) The general principle governing the provisions 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 degrees 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 available 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 means for preventing the entry of water at the fore end.

(iii) Alle reddingsbote moet 'n lengte hê van minstens 24 voet (of 7.3 meters), 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 16 voet (of 4.9 meters) lank wees nie.

(c) Geen reddingsboot mag goedgekeur word wat met sy volle lading persone en uitrusting meer as 20 ton (of 20,300 kilogram) weeg of op grondslag van regulasie 7 van hierdie hoofstuk 'n dravermoë van meer as 150 persone het nie.

(d) Alle reddingsbote wat toegelaat word om meer as 60 persone maar hoogstens 100 persone te dra, moet óf motorreddingsbote wees wat aan die vereistes van regulasie 9 van hierdie hoofstuk voldoen, óf 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.

(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 bloatgestel 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 blokkoeffisient van die kubieke inhoud van die boot, soos ooreenkomsdig regulasie 6 van hierdie hoofstuk bepaal, minstens 0.64 wees.

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 voet (of kubieke meters) 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 voet (of meters) vanaf die binnekant van die beplanking of beplating van

(iii) All lifeboats shall be not less than 24 feet (or 7.3 metres) 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 16 feet (or 4.9 metres) in length.

(c) No lifeboat may be approved the weight of which when fully laden with persons and equipment exceeds 20 tons (or 20,300 kilograms) 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.

(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.

REGULATION 6

Cubic Capacity of Lifeboats

(a) The cubic capacity of a lifeboat shall be determined by Stirling's (Simpson'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 feet (or cubic metres) of a lifeboat, calculated by the aid of Stirling'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 feet (or metres) from the inside of the planking or plating at the stem to the

die voorstewe tot by die ooreenkomsige 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 dwarsdeursnee 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).

Die oppervlaktes A, B, C word geag in vierkante voet (of vierkante meters) aangegee te wees deur agtereenvolgens die volgende formule op elk van die drie dwarsdeursnee toe te pas, naamlik—

$$\text{Oppervlakte} = \frac{h}{12} (a + 4b + 2c + 4d + e)$$

waar h die holte in voet (of meters) 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 voet (of in meters) 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 bove gaan, moet die holte wat gebruik word by die berekening van die oppervlakte van die dwarsdeursnee 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 bove 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 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 bove gaan nie.

(e) Indien die holte van 'n reddingsboot 4 voet (of 122 sentimeters) te bove gaan, moet die getal persone wat deur die toepassing van hierdie reël verkry word, eweredig in die verhouding waarin 4 voet (of 122 sentimeters) tot die werklike holte staan verminder word totdat die reddingsboot met daardie getal persone aan boord, almal met reddingsbuise aan, 'n bevredigende toets op die water deurgemaak het.

(f) Die Administrasie moet met behulp van gesikte 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 ooreenkomsige 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.

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.)

The areas A, B, C shall be deemed to be given in square feet (or square metres) 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 feet (or in metres) 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 feet (or in metres) 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 4 feet (or 122 centimetres) the number of persons given by the application of this Rule shall be reduced in proportion to the ratio of 4 feet (or 122 centimetres) to the actual depth, until the lifeboat has been satisfactorily tested afloat with that number of persons on board, all wearing lifejackets.

(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.

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.

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 toebehoere of die ratkas van die ander aandryfinrigting en indien hulle aan boord is, deur die radiotelegraafinstallasie en die soeklig met hul toebehoere.

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 voer te deel—

in die geval van 'n reddings-boot met 'n lengte van 24 voet (of 7·3 meters) of meer	deur 10 (of wanneer die inhoud in kubieke meters gemeet word, deur 0·283);
in die geval van reddingsbote met 'n lengte van 16 voet (of 4·9 meters) .. .	deur 14 (of wanneer die inhoud in kubieke meters gemeet word, deur 0·396); en
in die geval van reddingsbote met 'n lengte van 16 voet (of 4·9 meters) of meer maar minder as 24 voet (of 7·3 meters) ..	deur 'n syfer tussen 14 en 10 (of wanneer die inhoud in kubieke meters gemeet word, deur 'n syfer tussen 0·396 en 0·283), wat deur interpolasie verkry moet word;

Met dien verstande dat die getal in geen geval groter mag wees as die getal volwasse persone met reddingsbuise aan wat in die boot kan sit sonder om in enige opsig die gebruik van roeipanse 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 bove gaan nie, slegs een sodanige motorreddingsboot hoof vereis te word.

(b) Op elke vragskip van 1,600 ton bruto tonnemaat en meer, behalwe tenkskepe, skepe gebruik as walvisfabriekskepe, skepe gebruik as visverwerkings- of visinmaakfabriekskepe en skepe gebruik vir die vervoer van persone in die walvis-, visverwerkings- of visinmaaknywerhede, 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 meer, elke skip gebruik as 'n walvisfabriekskip, elke

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.

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 radio-telegraph 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 feet by:—

In the case of a lifeboat of 24 feet (or 7.3 metres) in length or over

10 (or where the capacity is measured in cubic metres, 0.283);

in the case of lifeboats of 16 feet (or 4.9 metres) in length

14 (or where the capacity is measured in cubic metres, 0.396); and

in the case of lifeboats of 16 feet (or 4.9 metres) in length or over but under 24 feet (or 7.3 metres)

a number between 14 and 10 (or where the capacity is measured in cubic metres, between 0.396 and 0.283), to be obtained by interpolation;

provided that the number shall in no case exceed the number of adult persons wearing lifejackets 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 in passenger ships in which the total 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

skip gebruik as 'n visverwerkings- of visinmaakfabriekskip en elke skip gebruik vir die vervoer van persone werkzaam in die walvis-, visverwerkings- of visinmaaknywerhede moet 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 voldoende brandstof wees om hom 24 uur onafgebroke te laat werk teen die snelheid in subparagraaf (a) (iii) van hierdie regulasie gespesifiseer.
- (ii) Die enjin en sy toebehore moet op gesikte wyse omsluit wees ten einde te verseker dat hy onder ongunstige weersomstandighede sal werk, en die enjinks 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 ooreenkomsdig regulasie 8 van hierdie hoofstuk moet wees op passasierskepe, tankskepe, skepe gebruik as walvisfabriekskepe, skepe gebruik as visverwerkings- of visinmaakfabriekskepe en skepe gebruik vir die vervoer van persone werkzaam 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 (indien enige) 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 een kubieke voet (of 0.283 kubieke meters) 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 type wees en moet voldoende drag hê om die reddingsboot, wanneer hy te water gelaat is, in staat te stel om geradelik 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 ongeoeefen 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.

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; sufficient fuel for 24 hours continuous operation at the speed specified in sub-paragraph (a) (iii) of this Regulation 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-resistant. 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 lifeboat, 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 one cubic foot (0.0283 cubic metre) 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) 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 roeispante en 'n drywende stuurspaan; 'n anderhalf stel roeipenne of -mikke wat deur middel van 'n taliereep of ketting aan die reddingsboot bevestig is; 'n bootshaak;
- (ii) vir elke propgat twee proppe (proppe word nie vereis wanneer behoorlike outomatiese kleppen aangebring is nie) wat deur middel van talierepe 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 die een met strop en knewel aan die voorent van die reddingsboot bevestig moet word sodat hy losgemaak kan word, terwyl die ander een stewig aan die voorstewe van die reddingsboot bevestig moet word en vir gebruik gereed moet wees;
- (xi) 'n vat met een gelling (of vier en 'n half liters) 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) waterdige houers wat ses pinte (of drie liter) vars water bevat vir elke persoon wat die reddingsboot gesertifiseer is om te dra, of waterdige houers wat vier pinte (of twee liter) vars water vir elke persoon bevat, tesame met 'n goedgekeurde ontsoutingstoestel wat twee pinte (of een liter) drinkwater per persoon kan verskaf; 'n roesvrye skepding aan 'n lyntjie; 'n roesvrye gegradeerde drinkbeker;
- (xiv) vier valskeermfakkels van 'n goedgekeurde tipe wat instaat 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 oranjekleurige rook af te gee;
- (xvi) goedgekeurde middels in die vorm van kimkiele of kielrelings om persone in staat te stel om aan die

- (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;
- (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 galvanised 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 becketted 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 one gallon (or four and a half litres) 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 six pints (or three litres) of fresh water for each person the lifeboat is certified to carry, or watertight receptacles containing four pints (or two litres) of fresh water for each person together with an approved de-salting apparatus capable of providing two pints (or one litre) 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

- boot vas te klou ingeval hy omkeer, asook gryptoue wat van dolboord na dolboord onder die kiel bevestig is, of ander goedgekeurde middels;
- (xvii) 'n goedgekeurde eerstehulpuitrusting in 'n waterdigte kissie;
- (xviii) 'n 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 waterdigtehouer;
- (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.
- (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 reddingsseine 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 subparagraawe (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 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 roeipanse aan boord te hê nie, maar hulle moet twee bootshake 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 inskeepung 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 12 van hoofstuk IV voldoen, moet daar vir reddingsvaartuie goedgekeurde draagbare radioapparaat wees wat aan die vereistes uiteengesit in regulasie 13

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;
- (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 sub-paragraphs (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 13 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

van hoofstuk IV voldoen. Al hierdie uitrusting moet by mekaar gehou word in die kaartkamer of ander gesikte plek, gereed om in 'n noodgeval na die een of 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 gesikte plek naby dié reddingsbote wat die verste van die skip se hoofsender verwyser 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 van sulke uitrusting afgesien word.

REGULASIE 14

Radio-apparaat en soekligte in motorreddingsbote

(a) (i) Wanneer daar aan boord van 'n passasierskip gebruik op ander internasionale reise as kort internationale reise, 'n skip gebruik as 'n walvisfabriekskip, 'n skip gebruik as 'n visverwerkings- of visinmaakfabriekskip of 'n skip gebruik vir die vervoer van persone werkzaam 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 12 van hoofstuk IV voldoen, aangebring word in minstens een van die motorreddingsbote wat daar ooreenkomsdig 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 ooreenkomsdig 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 enjin-aansitmotor of ontstekingstelsel 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 ooreenkomsdig paragraaf (a) van regulasie 8 van hierdie hoofstuk aan boord moet wees van passasieriskepe en ooreenkomsdig 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 werkzaam in die walvis-, visverwerkings- of visinmaaknywerhede.

(g) Die soeklig moet insluit 'n lamp van minstens 80 watt, 'n doeltreffende reflektor en 'n kragbron wat 'n voorwerp van 'n lige kleur en 'n breedte van sowat 60 voet (of 18 meters) op 'n afstand van 200 tree (of 180 meters) 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 so gebou wees dat hy in 'n seegang stabiel sal wees wanneer hy ten volle opgeblaas is en met sy bedekking boontoe dryf.

Chapter and of Regulation 12 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 life-boats 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 unnecessary, the Administration may allow such equipment to be dispensed with.

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 cannery factory ship or a ship engaged in the carriage of persons employed in the whaling, fish processing or cannery 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 12 of Chapter IV shall be fitted in at least one of the motor life-boats 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 cannery factory ships and ships engaged in the carriage of persons employed in the whaling, fish processing or cannery 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 60 feet (or 18 metres) at a distance of 200 yards (or 180 metres) 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) Die reddingsvlot moet so gebou wees dat nòg die reddingsvlot nòg sy uitrusting beskadig sal word indien hy van 'n hoogte van 60 voet (of 18 meters) in die water laat val 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 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-on die vlot veilig vasgestrop is. 'n Reddingslyn moet ook binne-on 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 teengekom word. Die reddingsvlot in sy ransel of ander houer moet inherente dryfvermoë hé.

(h) Die dryfvermoë van die reddingsvlot moet sodanig ingerig word dat 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 bevate, 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 400 lb. (of 180 kilogram) wees.

(j) Die getal persone wat 'n opblaasbare reddingsvlot mag toegelaat word om te bevate, moet gelyk wees aan—

(i) die grootste heel getal wat verkry word deur die volume van die hoofdryfbuisse (wat vir hierdie doel nie die boë of die dwarsbank of -banke, indien aangebring, insluit nie) wannek hulle opgeblaas is, deur 3.4 te deel wannek die volume in kubieke voet gemeet word (of deur 96, wannek die volume in kubieke desimeters gemeet word); of

(ii) die grootste heel getal wat verkry word deur die oppervlakte van die vloer (wat vir hierdie doel die dwarsbank of -banke, indien aangebring, kan insluit) van die reddingsvlot wannek dit opgeblaas is, met 4 te deel wannek die oppervlakte in vierkante voet gemeet word (of deur 3,720, wannek die oppervlakte in vierkante sentimeters 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 en die druk te handhaaf.

(b) The liferaft shall be so constructed that if it is dropped into the water from a height of 60 feet (or 18 metres) neither the liferaft nor its equipment will be damaged.

(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, 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 400 lb. (or 180 kilogrammes).

(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 3.4 the volume, measured in cubic feet (or by 96 the volume, measured in cubic decimetres) 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 4 the area, measured in square feet (or by 3,720 the area measured in square centimetres) 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) Die reddingsvlot moet van goedgekeurde materiaal en konstruksie wees en moet so gemaak wees dat hy 30 dae lank op see in alle seetoestande teen blootstelling bestand sal wees.

(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 mag word, word aan die goeddunke van die Administrasie oorgelaat maar mag nooit 25 te bove gaan nie.

(o) Die reddingsvlot moet dwarsdeur 'n temperatuurspeling van 150° F. tot minus 22° F. (of 66° C. tot minus 30° C.) bruikbaar wees.

(p) Die reddingsvlot moet so gebêre word dat hy in 'n noodgeval geredelik beskikbaar sal wees.

(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 so gebou wees dat nòg die reddingsvlot nòg sy uitrusting beskadig sal word wanneer hy vanaf sy stuwingplek in die water laat val word.

(b) Die dekkopervlakte van die reddingsvlot moet geleë wees binne dié gedeelte van die reddingsvlot wat beskerming aan sy insittendes verleen. Die oppervlakte van dié dek moet minstens 4 vierkante voet (of 3,720 vierkante sentimeters) wees vir elke persoon wat die reddingsvlot toegelaat is om te 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 beseiring as gevolg van blootstelling ongeag watter kant van die reddingsvlot bo dryf.

(d) Die uitrusting van die reddingsvlot moet so 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 400 lb. (of 180 kilogram) te bove gaan nie. Reddingsvlotte op vragskepe kan meer as 400 lb. (of 180 kilogram) weeg indien hulle van albei kante van die skip te water gelaat kan 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 toegelaat word om te dra, lugkaste of gelykwaardige dryfmiddels van minstens 3.4 kubieke voet (of 96 kubieke desimeters) 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.

(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 traliereep aan die reddingsvlot bevestig word.

(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.

(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 150° F. to minus 22° F. (or 66° C. to minus 30° C.).

(p) The liferaft shall be so stowed as to be readily available in case of emergency.

(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 4 square feet (or 3,720 square centimetres) 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 400 lb. (or 180 kilograms). Liferafts carried in cargo ships may exceed 400 lb. (or 180 kilograms) 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 3.4 cubic feet (or 96 cubic decimetres) 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.

(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 affected by oil or oil products.

(k) A buoyant light of the electric battery type shall be attached to the liferaft by a lanyard.

(l) Die reddingsvlot moet toegerus wees met sulke inrigtings dat hy geredelik gesleep kan word.

(m) Reddingsvlotte moet so 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 reddingsgooring aan 'n drywende lyn van minstens 100 voet (of 30 meters).
- (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 bliksnsers.
- (ix) Een goedgekeurde eerstehulpuitrusting in 'n waterdigte kissee.
- (x) Een roesvrye gegradueerde drinkbeker.
- (xi) Een waterdigte elektriese flitslig wat geskik is vir die gee van seine in die Morsekode, tesame met een reserwe-stel batterye en een reserwegloeilampie in 'n waterdigte houer.
- (xii) Een spieël om seine gedurende die dag te gee en een fluitjie om seine mee te gee.
- (xiii) Twee valskermoodfakkels 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 toegelaat is om te bevat, 'n voedselrantsoen vasgestel deur die Administrasie.
- (xvii) Waterdigte houers wat drie pinte (of anderhalf liter) vars water bevat vir elke persoon wat die reddingsvlot toegelaat is om te bevat, waarvan een pint (of half liter) per persoon vervang kan word deur 'n geskikte onsoutingstoestel wat ewe veel vars water kan lewer.
- (xviii) Vir elke persoon wat die reddingsvlot in staat geag word om te bevat, ses tablette teen seesiekte.
- (xix) Voorskryfe 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 passasierkskepe wat gebruik word op kort internasionale reise van so 'n duur dat al die items aangegee in paragraaf (a) na die mening 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 op die skip gedra word, voorsien word van die uitrusting uiteengesit in subparagraphe (i) tot en met (vii), (xi) en (xix) van paragraaf (a) van hierdie regulasie, en van die helfte van die uitrusting uiteengesit in subparagraphe (xiii) en (xiv) van genoemde paragraaf, en dat die res van die reddingsvlotte wat gedra word, voorsien word van die uitrusting uiteengesit in subparagraphe (i) tot en met (vii) en (xix) van genoemde paragraaf.

(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 100 feet (or 30 metres) 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 three pints (or one and a half litres) of fresh water for each person the liferaft is permitted to accommodate, of which one pint (or half a litre) 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.
- (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 paragraph (a) are unnecessary, the Administration may allow one or more liferafts, not being less than one-sixth of the number of the 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 the said paragraph and the remainder of the liferafts carried to be provided with the equipment specified in subparagraphs (i) to (vii) inclusive and (xix) of the said paragraph.

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 waarop reddingsvlotte gedra word, 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 passasierekope, skepe gebruik as walvisfabriekskope, 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 passasierekope 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 passasierekope, skepe gebruik as walvisfabriekskope, 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 stuwingposisie van reddingsvlotte waarvoor goedgekeurde tewaterlatingstoestelle nie verskaf is nie;
- (iv) middels om die passasierekope en bemanning te waarsku dat die skip op die punt staan om verlaat te word; en
- (v) middels om te verhoed dat daar by vaste tewaterlatingsplekke, met inbegrip van dié onder goedgekeurde tewaterlatingstoestelle, water in die 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

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 passenger ships, ships employed as whale factory ships, ships employed as fish processing or cannning factory ships and ships engaged in the carriage of persons employed in the whaling, fish processing or cannning 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 cannning factory ships, and ships engaged in the carriage of persons employed in the whaling, fish processing or fish cannning 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 launched until the process of launching is completed;
 - (iii) means for illuminating the stowage position of liferafts for which approved launching devices are not provided;
 - (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

blywende tekens daarop aangedui word. Die naam en registrasiehawe van die skip waaraan die reddingsboot behoort, moet op 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 reddingsvlote 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 ophê 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 ooreenkomsdig 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 32 lb. (of 14.5 kilogram) 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, kurkskaaf-sels 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 seawater 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 knewelde stroope. Minstens een reddingsboei aan elke kant van die skip moet toegerus wees met 'n drywende reddingslyn wat minstens 15 vadems (of 27.5 meters) lank is.

(e) Minstens die helfte van die totale getal redningsboeie op passasierskepe maar in geen geval minder as ses nie, en minstens die helfte van die totale getal redningsboeie op vragskepe moet toegerus wees met doeltreffende selfontbrandende ligte.

(f) Die selfontbrandende ligte wat by paraagraaf (e) van hierdie regulasie vereis word, moet sodanig wees dat hulle nie deur water uitgedooft kan word nie. Hulle moet minstens 45 minute lank kan brand en moet 'n lighelderheid van minstens 3.5 lumens hê. Hulle moet saam met die nodige aanhegmiddels gehou word naby die redningsboeie waarby hulle hoort. Selfontbrandende ligte wat op tenkskepe gebruik word, moet van 'n goedgekeurde elektriese battery-tipe wees.

(g) Alle redningsboeie moet so geplaas word dat hulle geredelik vir die persone aan boord bereikbaar sal wees, en minstens twee van die redningsboeie wat ooreenkomsdig paraagraaf (e) van hierdie regulasie met selfontbrandende ligte toegerus is, moet ook met 'n doeltreffende selfaktiverende rooksinjal wat minstens 15 minute lank rook van 'n hoogs sigbare kleur kan voortbring toegerus wees en vinnig van die navigasiebrug gelos kan word.

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 32 lbs. (or 14.5 kilogrammes) 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 beackets securely seized. At least one lifebuoy on each side of the ship shall be fitted with a buoyant lifeline of at least 15 fathoms (or 27.5 metres) in length.

(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 luminosity of not less than 3.5 lumens. They 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) Reddingsboei moet altyd vinnig gelos kan word en moet hoegenaamd nie blywend bevestig wees nie.

REGULASIE 22

Reddingsbuisse

(a) Skepe moet vir elke persoon aan boord 'n reddingsbuis van 'n goedgekeurde tipe hê, en, tensy hierdie reddingsbuisse vir gebruik deur kinders ingerig kan word, moet daar voldoende reddingsbuisse wees wat vir kinders geskik is.

(b) Benewens die reddingsbuisse wat by paragraaf (a) vereis word, moet daar op passasierskepe reddingsbuisse wees vir 5 persent van die totale getal persone aan boord. Hierdie reddingsbuisse moet op 'n opvallende plek op die dek bewaar word.

(c) 'n Reddingsbuis mag nie goedgekeur word nie tensy hy aan die volgende vereistes voldoen:—

- (i) Hy moet op behoorlik vakkundige wyse en van behoorlike materiaal vervaardig wees.
- (ii) Hy moet in staat wees om in varswater 16.5 pond (of 7.5 kilogram) yster 24 uur lank te dra.
- (iii) Hy moet so vervaardig wees dat alle gevaar dat hy verkeerd aangesit kan word, vir sover doenlik uitgeskakel word, maar dit moet moontlik wees om hom met sy binnekant na buite te dra.
- (iv) Hy moet ondersteuning vir die kop bied sodat die gesig van 'n bewusteloze persoon bo die water gehou word terwyl die liggaam skuins agtertoe leun.
- (v) Hy moet in staat wees om die liggaam, wanneer dié in die water beland, in 'n veilige drywende posisie te draai met die liggaam skuins agtertoe geleun.
- (vi) Hy moet nie deur olie of olieprodukte nadelig aangesas word nie.
- (vii) Hy moet 'n hoogs sigbare kleur hê.
- (viii) Hy moet toegerus wees met 'n goedgekeurde fluitjie wat deur middel van 'n koord stewig bevestig is.

(d) 'n Reddingsbuis waarvan die dryfvermoë afhanklik is van opblasing, kan toegelaat word vir gebruik deur die bemannings van alle skepe behalwe passasierskepe en tankskepe, op voorwaarde dat—

- (i) hy twee afsonderlike lugafdelings het wat gesamentlik 33 pond (of 15 kilogram) en elkeen afsonderlik 16.5 pond (of 7.5 kilogram) yster 24 uur lank in vars water kan dra;
- (ii) hy sowel meganies as met die mond opgeblaas kan word; en
- (iii) hy aan die vereistes van subparagraphe (i), (iii), (iv), (v), (vi), (vii) en (viii) van paragraaf (c) voldoen, selfs wanneer een lugafdeling nie opgeblaas is nie.

(e) Reddingsbuisse moet so geplaas word dat hulle redelik bereikbaar sal wees en hulle posisies 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 250 tree (of 230 meters) ver tewerp en moet minstens vier projektlede en vier lyne insluit.

REGULASIE 24

Noodseine van Skepe

Skepe moet tot tevredenheid van die Administrasie toegerus wees met middels waardeur in die dag en in die nag doeltreffende noodseine gegee kan word, met inbegrip van minstens twaalf valskeermfakkels wat in staat is om op 'n groot hoogte 'n helder rooi lig te gee.

(h) Lifebuoys shall always be capable of being rapidly cast loose and shall not be permanently secured in any way.

REGULATION 22

Lifejackets

(a) Ships shall carry for every person on board a lifejacket of an approved type and, in addition, unless these lifejackets can be adapted for use by children, a sufficient number of lifejackets suitable for children.

(b) In addition to the lifejackets required by paragraph (a) there shall be carried on passenger ships lifejackets for 5 per cent of the total number of persons on board. These lifejackets shall be stowed in a conspicuous place on deck.

(c) A lifejacket shall not be approved unless it satisfies the following requirements:—

- (i) It shall be constructed with proper workmanship and materials.
- (ii) It shall be capable of supporting in fresh water for 24 hours 16.5 pounds (or 7.5 kilograms) of iron.
- (iii) 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.
- (iv) It shall provide support to the head so that the face of an unconscious person is held above the water with the body inclined backwards from its vertical position.
- (v) It shall be capable of turning the body, on entering the water, to a safe floating position with the body inclined backwards from its vertical position.
- (vi) It shall not be adversely affected by oil or oil products.
- (vii) It shall be of a highly visible colour.
- (viii) It shall be fitted with an approved whistle, firmly secured by a cord.

(d) A lifejacket, 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 air compartments, together capable of supporting in fresh water for 24 hours 33 pounds (or 15 kilograms) of iron, and each capable of so supporting 16.5 pounds (7.5 kilograms) of iron.
- (ii) It is capable of being inflated both mechanically and by mouth.
- (iii) It complies with the requirements of subparagraphs (i), (iii), (iv), (v), (vi), (vii) and (viii) of paragraph (c) even if one air compartment is not inflated.

(e) Lifejackets 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 250 yards (or 230 metres) 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.

REGULASIE 25

Monsterrol en noodprosedure

(a) Aan elke lid van die bemanning moet 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 die pligte wat hy moet vervul.

(c) Voordat die skip vertrek moet die monsterrol opgestel word. Afskrifte moet in verskeie dele van die skip en veral in die bemanningskwartiere opgeplak word.

(d) Die monsterrol moet die pligte aantoon wat aan die verskillende lede van die bemanning toegewys is in verband met—

- (i) die toemaak van die waterdigte deure, kleppes en toemaakmeganismes van spuigate, assortkokers en branddeure;
- (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 reddings-toestelle;
- (v) die aantreding van passasiers; en
- (vi) die blus van brand.

(e) Die monsterrol moet die onderskeie pligte aantoon wat aan die lede van die hofmeestersafdeling 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 reddingsbuise 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) versekerung dat 'n voorraad komberse na die reddingsbote geneem word.

(f) Die monsterrol moet bepaalde seine spesifiseer vir die oproep van al die bemanningslede na hul boot-, reddingsvlot- 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 vrag-skepe van minder as 150 voet (of 45.7 meters) lank, aangevul word deur ander seine wat met elektrisiteit werk. Al hierdie seine moet vanaf die brug gegee kan word.

REGULASIE 26

Oefenaantredings en driloejeninge

(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 passasiersskip die laaste vertrek-hawe verlaat op 'n internasionale reis wat nie 'n kort internasionale reis is nie.

(ii) Op vrag-skepe 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 geleenthed van die maandelikse aantreding op vrag-skepe 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

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) Before the vessel sails, the muster list shall be drawn up. Copies shall be posted in several parts of the ship, and in particular in the crew's quarters.

(d) 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;
- (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 lifeboats;
- (iv) the general preparation of the other life-saving appliances;
- (v) the muster of the passengers; and
- (vi) the extinction of fire.

(e) 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 lifejackets 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.

(f) 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 150 feet (or 45.7 metres) 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 boats' equipment shall be examined to ensure that it is complete.

(iv) The date upon which musters are held shall be recorded in such log book as may be prescribed by the

(in die geval van passasierskepe) of maand (in die geval van vragskepe) geen aanstreding nie of slegs 'n gedeeltelike aanstreding gehou word, moet die omstandighede en die omvang van die aanstreding opgeteken word. 'n Verslag oor die ondersoek van die bote se uitrusting op vragskepe moet opgeteken word in die joernaal, wat ook die geleentheid moet aangee waarop die reddingsbote uitgeswaai en neergelaat is ooreenkomsdig die bepalings van paragraaf (c) van hierdie regulasie.

(b) Op passasierskepe, behalwe dié wat op kort internasionale reise gebruik word, moet 'n aanstreding van die passasiers gehou word binne vier-en-twintig 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 aanstredings en inspeksies moet so 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 sulke vlotte aan boord is.

(d) Die noodsein om passasiers op te roep na aanstredoste, moet bestaan uit sewe of meer opeenvolgende kort stote gevvolg 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 28 voet (of 8½ meters) lank wees. Hulle kan vir die toepassing van paragrawe (b) en (c) van hierdie regulasie in berekening gebring word, mits hulle allesins 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 allesins voldoen aan die vereistes van regulasie 9 en, waar toepaslik, regulasie 14. 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.

Administration; and, 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 boats' equipment on cargo ships shall be 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 twenty-four 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 28 feet (or 8½ metres) 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. 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.

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 $37\frac{1}{2}$ persent van die totale getal persone aan boord te huisves nie.

- (ii) Reddingsvlotte met 'n voldoende totale inhoud om 25 persent van die totale 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 internasjonale reise gebruik word, moet ooreenkomsdig 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 internasjonale 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 (c) (ii) mag die getal persone wat vervoer word op 'n skip wat op kort internasjonale reise gebruik word, nie groter wees as die totale inhoud van die reddingsbote wat ooreenkomsdig subparagrafe (c) (i) en (c) (ii) van hierdie regulasie 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 voldoen.

(iv) Wanner die Administrasie ooreenkomsdig subparagraaf (c) (iii) 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 ooreenkomsdig subparagraaf (c) (ii) 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 190 voet (of 58 meters) 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 190 voet (of 58 meters), 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.

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 $37\frac{1}{2}$ per cent of all on board.

- (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 sub-paragraph (c) (ii) 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 sub-paragraphs (c) (i) and (c) (ii) of this Regulation 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.

(iv) Where under the provisions of sub-paragraph (c) (iii) 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 sub-paragraph (c) (ii) it may permit a reduction in the number of lifeboats.

Provided that—

- (1) the number of lifeboats shall, in the case of ships of 190 feet (or 58 metres) 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 190 feet (or 58 metres) 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.

(v) Elke passasierskip wat op kort internasjonale reise gebruik word moet, benewens die reddingsbote en reddingsvlotte wat ooreenkomsdig 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 internasjonale reise gebruik word, moet ook drywende toestelle dra vir minstens 5 persent van die totale getal persone aan boord.

(vii) Die Administrasie kan individuele skepe of klasse skepe met sertifikate vir kort internasjonale 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, 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 internasjonale reise

Onderstaande tabel verstrek na gelang van die lengte van die skip—

- (A) die minimum getal stelle davits, elkeen met 'n reddingsboot ooreenkomsdig regulasie 27 van hierdie hoofstuk aan hom bevestig, wat op 'n skip gebruik op kort internasjonale reise verskaf moet word;
- (B) die kleiner getal stelle davits wat by uitsondering ingevolge regulasie 27 gemagtig mag word vir 'n skip wat op kort internasjonale reise gebruik word; en
- (C) die minimum reddingsbootinhoud vereis vir 'n skip wat op kort internasjonale 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 life-boats 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, 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 life-boat 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; 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	
Voet	Meters			Kubieke voet	Kubieke meters
100 en onder	120	31 en onder	37	2	400
120	" 140	37 "	43	2	650
140	" 160	43	49	2	900
160	" 175	49	53	3	1,150
175	" 190	53	58	3	1,350
190	" 205	58	63	4	1,550
205	" 220	63	67	4	1,750
220	" 230	67	70	5	1,850
230	" 245	70	75	5	2,150
245	" 255	75	78	6	2,400
255	" 270	78	82	6	2,700
270	" 285	82	87	7	3,000
285	" 300	87	91	7	3,300
300	" 315	91	96	8	3,600
315	" 330	96	101	8	3,900
330	" 350	101	107	9	4,300
350	" 370	107	113	9	4,750
370	" 390	113	119	10	5,150
390	" 410	119	125	10	5,550
410	" 435	125	133	12	6,050
435	" 460	133	140	12	6,550
460	" 490	140	149	14	7,150
490	" 520	149	159	14	7,800
520	" 550	159	168	16	8,400

Opmerking oor (C).—Wanneer die lengte van die skip kleiner as 100 voet (of 31 meters) of groter as 550 voet (of 168 meters) is, moet die minimum getal stelle davits en die kubieke inhoud van die reddingsbote deur die Administrasie voorgeskryf word.

Registered Length of Ship		(A) Minimum Number of Sets of Davits	(B) Smaller Number of Sets of Davits authorised exceptionally	(C) Minimum Capacity of Lifeboats	
Feet	Metres			Cubic Feet	Cubic Metres
100 and under	120	31 and under	37	2	400
"	140	37	43	2	650
"	160	43	49	2	900
"	175	49	53	3	1,150
"	190	53	58	3	1,350
"	205	58	63	4	1,550
"	220	63	67	4	1,750
"	230	67	70	5	1,850
"	245	70	75	5	2,150
"	255	75	78	6	2,400
"	270	78	82	6	2,700
"	285	82	87	7	3,000
"	300	87	91	7	3,300
"	315	91	96	8	3,600
"	330	96	101	8	3,900
"	350	101	107	9	4,300
"	370	107	113	9	4,750
"	390	113	119	10	5,150
"	410	119	125	10	5,550
"	435	125	133	12	6,050
"	460	133	140	12	6,550
"	490	140	149	14	7,150
"	520	149	159	14	7,800
"	550	159	168	16	8,400

Note on (C).—Where the length of the ship is under 100 feet (or 31 metres) or over 550 feet (or 168 metres) 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 tewaterlatingsstoestelle 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 die ander kant; en
- (iv) die reddingsvlotte waarvoor goedgekeurde tewaterlatingsstoestelle nie gedra hoof 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 mag 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 hoë dek gestu word.

(d) Reddingsbote, en reddingsvlotte waarvoor goedgekeurde tewaterlatingsstoestelle gedra moet word, mag nie in die boeg van die skip geplaas word nie. Hulle moet in sodanige posisies gestu word dat veilige tewaterlatting versek word, veral met inagneming van die vryruimte tussen hulle en die skroef en steil oorhangende dele van die romp agterskeeps.

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 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 moet van 'n goedgekeurde ontwerp wees en moet tot tevredenheid van die Administrasie in gesikte 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 $2\frac{1}{4}$ ton (of 2,300 kilogram) weeg wanneer hulle volledig uitgerus en beman is;
- (ii) swaartekragdavits vir reddingsbote wat meer as $2\frac{1}{4}$ ton (of 2,300 kilogram) weeg wanneer hulle volledig uitgerus en beman is.

(g) Davits, lopers, blokke en alle ander tuig moet so 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 gesikte 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 manillatouopers 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 manillatouopers 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 gesikte ring of lang skakel om aan die slingerhake gehaak te word, tensy daar 'n ontkoppelingsinrigting van 'n goedgekeurde tipe aangebring is.

(l) Wanneer mekaniese 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 ter voorkoming van oorspanning van die draadkabellopers of davits veiligheidstoestelle aangebring word wat die krag outomatis sal afsluit voordat die davits teen die stuuters 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 gelykydig nie, van die lopers los te maak. 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.

(n) (i) Op passasierskepe wat op ander internasjonale reise as kort internasjonale reise gebruik word en wat reddingsbote en reddingsvlotte ooreenkomsdig subparaagraaf (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, ooreenkomsdig genoemde subparaagraaf vereis word om vir almal aan boord plek te bied, in kalm toestande in hoogstens dertig minute in die water te plaas

(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 $2\frac{1}{4}$ tons (or 2,300 kilogrammes) in their turning out condition;
- (ii) gravity type for operating lifeboats weighing more than $2\frac{1}{4}$ tons (or 2,300 kilogrammes) 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 manila 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 sea-going 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.

(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 sub-paragraph (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 sub-paragraph 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 thirty minutes

wanneer hulle die getal persone aan boord het wat hulle toegelaat is om te bevatten. 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 ooreenkomsdig subparagraaf (b) (ii) van regulasie 27 van hierdie hoofstuk vir 25 persent van almal aan boord gedra moet word nie, maar elke reddingsvlot wat ooreenkomsdig 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 verskaf 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 verligtingsnet 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 vereis word, moet hierdie verligtingsnet waar nodig van krag kan voorsien en moet ook die verligting kan verskaf wat by subparagrawe (a) (ii), (b) (ii) en (b) (iii) van regulasie 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 nooddlamp verlig word. Die kragtoevoer vir hierdie nooddlampe moet so ingerig wees dat, indien die hoofopwekinstallasie buite werking raak, sodanige nooddlampe hul krag sal verkry uit die noodkragbron waarvan 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.

(c) 'n Man wat in staat is om die radio- en soeklik-installasies 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 bepalings van hierdie hoofstuk aan boord is, 'n getal reddingsbootmanne wees wat minstens gelyk is aan dié wat in die onderstaande tabel aangegee word:—

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 sub-paragraph (b) (ii) of Regulation 27 of this Chapter for 25 per cent of all on board, but every liferaft carried in accordance with that sub-paragraph 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, &c.

(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 shall be capable of supplying where necessary this lighting system and also the lighting required by sub-paragraphs (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 certificated 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.

(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:—

Voorgeskrewe getal persone op redningsboot	Minimum getal gediplomeerde redningsbootmanne
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 redningsbootmanne aan elke redningsboot 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 redningsbote en ander reddingstoestelle en in die gebruik van roeipanse en aandryfinrigtings, dat hy vertrouyd is met die praktiese hantering van redningsbote en ander reddingsuitrusting, en voorts dat hy in staat is om die bevele betreffende alle soorte reddingstoestelle te verstaan en te beantwoord.

REGULASIE 33

Drywende toestelle

(a) Geen tipe drywende toestel mag goedgekeur word nie tensy hy aan die onderstaande voorwaarde voldoen:—

- (i) Hy moet sodanige afmetings hê en so sterk wees dat hy vanaf sy stuwingssplek in die water gegooi kan word sonder om beskadig te word.
- (ii) Hy moet 'n gewig hê van hoogstens 400 lb. (of 180 kilogram) 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 stetig buite-om vasgestrop wees.

(b) Die getal persone waaroor drywende toestelle gertifiseer is, moet die getal wees:—

- (i) wat verkry word deur die getal ponde yster wat so 'n toestel in vars water kan dra, deur 32 (of die getal kilogramme deur 14.5) te deel; of
 - (ii) wat gelyk is aan die getal voet (gelyk aan 30.5 sentimeters) in die omtrek,
- na gelang van watter getal die kleinste is.

REGULASIE 34

Getal reddingsboeie wat verskaf moet word

Die minimum getal reddingsboeie waarmee passasier-skepe toegerus moet word, moet volgens onderstaande tabel bepaal word:—

Voet	Lengte van skip	Minimum getal boeie
Onder 200	Onder 61	8
200 en onder 400	61 en onder 122	12
400 en onder 600	122 en onder 183	18
600 en onder 800	183 en onder 244	24
800 en groter	244 en groter	30

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 400 lbs. in weight (or 180 kilogrammes) 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 pounds of iron which it is capable of supporting in fresh water by 32 (or the number of kilogrammes divided by 14.5), or
- (ii) equal to the number of feet (equivalent to 30.5 centimetres) in the perimeter,

whichever is the less.

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 in Feet	Length of Ship in Metres	Minimum Number of Buoys
Under 200	Under 61	8
200 and under 400	61 and under 122	12
400 and under 600	122 and under 183	18
600 and under 800	183 and under 244	24
800 and over	244 and over	30

DEEL C—SLEGS VRAGSKAPE

REGULASIE 35

Getal en inhoud van reddingsbote en reddingsvlotte

(a) (i) Elke vragskip, behalwe tenkskepe van 1,600 ton bruto tonnemaat en meer, 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 te moet dra, hy individuele skepe of klasse skepe in daardie mate van hierdie vereiste kan vrystel.

(ii) Elke tenkskip van 1,600 ton bruto tonnemaat en meer moet aan elke kant van die skip reddingsbote dra met so 'n totale inhoud dat hulle al die persone aan boord kan bevat.

(b) (i) Elke skip gebruik as 'n walvisfabriekschip, elke skip gebruik as 'n visverwerkings- of visinmaakfabriekschip 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 nooit aan enige kant van die skip minder reddingsbote mag wees as wat genoeg is om $37\frac{1}{2}$ 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 walvisfabriekschip, elke skip gebruik as 'n visverwerkings- of visinmaakfabriekschip 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 28 voet (of $8\frac{1}{2}$ meters) lank wees. Hulle kan vir die 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. 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 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.

PART C.—CARGO SHIPS ONLY

REGULATION 35

Number and Capacity of Lifeboats and Liferafts

(a) (i) Every cargo ship, except tankers of 1,600 tons gross tonnage and upwards, ships employed as whale factory ships, fish processing or cannery ships, and ships engaged in the carriage of persons employed in the whaling, fish processing or cannery 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) Every tanker of 1,600 tons gross tonnage and upwards shall carry lifeboats on each side of the ship of such aggregate capacity as will accommodate all persons on board.

(b) (i) Every ship employed as a whale factory ship, every ship employed as a fish processing or cannery factory ship and every ship engaged in the carriage of persons employed in the whaling, fish processing or cannery 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 however that there shall never be less than sufficient lifeboats on each side of the ship to accommodate $37\frac{1}{2}$ 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 cannery 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 cannery factory ship and every ship engaged in the carriage of persons employed in the whaling, fish processing or cannery 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 28 feet (or $8\frac{1}{2}$ metres) 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. 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 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) Elke tenkskip van 3,000 ton bruto tonnemaat en meer moet minstens vier reddingsbote dra. Twee reddingsbote moet agterskeeps en twee midskeeps gedra word, maar in tenkskepe wat nie midskeeps 'n bobou het nie, moet al die reddingsbote agterskeeps gedra word.

Met dien verstande dat, indien dit in die geval van tenkskepe sonder 'n bobou midskeeps ondoenlik is om vier reddingsbote agterskeeps te dra, die Administrasie kan toelaat dat in die plek daarvan een reddingsboot aan elke kant van die skip agterskeeps gedra word. In so 'n geval—

- (i) moet elke sodanige reddingsboot hoogstens 26 voet (of 8 meters) lank wees;
- (ii) moet elke sodanige reddingsboot so ver vorentoe as moontlik gestu word, maar minstens so ver vorentoe dat die agterend van die reddingsboot anderhalf maal die lengte van die reddingsboot voor die skroef is;
- (iii) moet elke reddingsboot so na aan die seevlak gestu word as wat veilig en doenlik is; en
- (iv) moet daar ook nog voldoende reddingsvlotte gedra word om minstens die helfte van alle persone aan boord te bevat.

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 tewaterlatingstoestelle gedra word, mag nie in die boeg van die skip geplaas word nie. 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.

(d) Davits moet van 'n goedgekeurde ontwerp wees en moet tot tevredenheid van die Administrasie in gesikte posisies aangebring word.

(e) Op tenkskepe van 1,600 ton bruto tonnemaat en meer, skepe gebruik as walvisfabriekskepe, skepe gebruik as visverwerkings- of visinmaakkfabriekskepe 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 $2\frac{1}{4}$ ton (of 2,300 kilogram) weeg wanneer hulle volledig uitgerus en beman is;
- (ii) swaartekragdavits vir reddingsbote wat meer as $2\frac{1}{4}$ ton (of 2,300 kilogram) weeg wanneer hulle volledig uitgerus en beman is.

(f) Davits, lopers, blokke en alle ander tuig moet so 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.

(g) Skaatse of ander gesikte 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.

(c) Every tanker of 3,000 tons gross tonnage and upwards shall carry not less than four lifeboats. Two lifeboats shall be carried aft and two amidships, except that in tankers which have no amidships superstructure all lifeboats shall be carried aft.

Provided that, if in the case of tankers with no amidships superstructure it is impracticable to carry four lifeboats aft, the Administration may permit instead the carriage aft of one lifeboat on each side of the ship. In such a case—

- (i) each such lifeboat shall not exceed 26 feet (or 8 metres) in length;
- (ii) each such lifeboat shall be stowed as far forward as practicable, but at least so far forward that the after end of the lifeboat is one-and-a-half times the length of the lifeboat forward of the propeller;
- (iii) each lifeboat shall be stowed as near the sea level as is safe and practicable; and
- (iv) there shall be carried in addition liferafts sufficient to accommodate at least one-half of the total number of persons on board.

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 not be placed in the bow of the ship. 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 aft, with the object of ensuring so far as practicable that they are capable of being launched down the straight side of the ship.

(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 cannning factory ships and ships engaged in the carriage of persons employed in the whaling, fish processing or cannning 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 $2\frac{1}{4}$ tons (or 2,300 kilograms) in their turning out condition;
- (ii) gravity type for operating lifeboats weighing more than $2\frac{1}{4}$ tons (or 2,300 kilograms) 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) Reddingsbote, asook die noodbote wat by subparaaf (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 middeliers 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 hand-inrigtings ook verskaf word. Wanneer davits ingehaal word deur die kragbediening van die lopers, moet ter voorkoming van oorspanning van die draadkabellopers of davits veiligheidstoestelle aangebring word wat die krag outomaties sal afsluit voordat die davits teen die stuuters kom.

(l) Die lopers vir reddingsbote moet gereed wees vir gebruik, en reëlings moet getref word om die reddingsbote vinnig, maar nie noodwendig gelykydig 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 stabilitet verzekerd word wanneer die reddingsbote neergelaat word.

(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 ooreenkomsdig subparagraaf (i) (2) van paragraaf (b) van regulasie 35 gedra word, is dit nie nodig om goedgekeurde tewaterlatingstoestelle vir die reddingsvlotte te verskaf nie, maar sodanige toestelle moet verskaf word wat na die oordeel van die Administrasie voldoende in getal is om die reddingsvlotte wat ooreenkomsdig subparagraaf (i) (1) van daardie paragraaf gedra word, 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. Elke reddingsvlot gedra 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 acht 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 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 stuwingplekke van die reddingsbote en -vlotte.

(i) Lifeboats, together with the emergency boats required by sub-paragraph (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 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 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 sea-going 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.

(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 sub-paragraph (i) (2) of paragraph (b) 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 sub-paragraph (i) (1) of that paragraph 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 sub-paragrapahs (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. In cargo ships of 1,600 tons gross tonnage and upwards the Administration shall ensure that the lighting of the alleyways, stairways and exists is such that the access of all persons on board to the launching stations and stowage positions of lifeboats and liferafts is not impeded.

HOOFSTUK IV—RADIOTELEGRAFIE EN RADIODATELÉFONIE

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 regulasies andersins van toepassing sou wees, so lank sulke skepe 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, 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.

REGULASIE 2

Uitdrukkings en definisies

Vir die toepassing van hierdie hoofstuk het die volgende uitdrukkings ondervermelde betekenis. Alle ander uitdrukkings wat in hierdie hoofstuk geset is en ook in die Radioregulasies omskryf word, het hier dieselfde betekenis as wat in daardie regulasies daarvan geheg word:—

- (a) „Radioregulasies” beteken die Radioregulasies wat as bylae verskyn of geag word as bylae te verskyn van die jongste Internasionale Konvensie betrekende Telekommunikasie wat te eniger tyd van krag mag wees.
- (b) „Radiotelegraaf-outo-alarm” beteken 'n outo-alarmontvangtoestel wat op die radiotelegraaf-alarmsein reageer en goedekeur is.
- (c) „Radio-offisier” beteken iemand in besit van 'n radiotelegraafbedienersertifikaat van minstens die eerste of tweede klas wat aan die bepальings van die Radioregulasies voldoen, en werkzaam is in die radiotelegraafstasie van 'n skip wat met so 'n stasie toegerus is ooreenkomsdig die bepальings van regulasie 3 of regulasie 4 van hierdie hoofstuk.
- (d) „Radiotefoonoperateur” beteken iemand in besit van 'n toepaslike sertifikaat wat aan die bepальings van die Radioregulasies voldoen.
- (e) „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 of uit dele wat ter vervanging van identiese dele aangebring is of uit dele wat aan die vereistes van hierdie hoofstuk voldoen.
- (f) „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 passasier-skepe ongeag hul grootte en vrag-skepe van 1,600 ton bruto tonnemaat en meer toegerus wees met 'n radiotelegraafstasie wat voldoen aan die bepальings van regulasies 8 en 9 van hierdie hoofstuk.

* Sulke skepe is onderworpe aan spesiale vereistes met betrekking tot radio vir veiligheidsdoeleindes, en die huidige vereistes is vervat in 1952 se ooreenkoms tussen die Verenigde State en Kanada getitel „Promotion of Safety on the Great Lakes by means of Radio”.

CHAPTER IV.—RADIOTELEGRAPHY AND RADIODATELÉPHONY

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 the 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.

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) "Radio officer" means a person holding at least a first or second class radiotelegraph operator's certificate 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.
- (d) "Radiotelephone operator" means a person holding an appropriate certificate complying with the provisions of the Radio Regulations.
- (e) "Existing installation" means—
 - (i) an installation wholly installed on board a ship before the date on which the present Convention comes 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 coming 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.
- (f) "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 8 and 9 of this Chapter.

* Such ships are subject to special requirements relative to radio for safety purposes, the present requirements being contained in the United States-Canadian agreement of 1952, entitled: "Promotion of Safety on the Great Lakes by Means of Radio".

REGULASIE 4*Radiotelefoonstasie*

Tensy hulle toegerus is met 'n radiotelegraafstasie wat voldoen aan die bepalings van regulasies 8 en 9 van hierdie hoofstuk en mits hulle nie ingevolge regulasie 5 van hierdie hoofstuk vrygestel is nie, moet vragsskepe van 300 ton bruto tonnemaat en meer maar minder as 1,600 ton bruto tonnemaat toegerus wees met 'n radiotelefoonstasie wat voldoen aan die vereistes van regulasies 14 en 15 van hierdie hoofstuk.

REGULASIE 5*Vrystellings 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 vragsskepe deeltelike 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 op die algemene doeltreffendheid van die nooddien 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 14 en 15 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 verleent is, aangegee en die redes vir sodanige vrystellings verstrek word.

DEEL B.—LUISTERDIENS**REGULASIE 6***Luisterdiens—Radiotelegrafie*

(a) Elke skip wat ooreenkomsdig 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 koptelefoon of 'n luidspreker gebruik, 'n onafgebroke luisterdiens op die radiotelegraafnoodfrekwensie gehandhaaf word.

(b) Elke passasiesskip wat ooreenkomsdig 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 koptelefoon of 'n luidspreker gebruik, 'n luisterdiens op die radiotelegraafnoodfrekwensie soos volg handhaaf—

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 8 and 9 of this Chapter shall, provided they are not exempted under Regulation 5 of this Chapter, be fitted with a radiotelephone station complying with the provisions of Regulations 14 and 15 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 the Administration may grant 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 14 and 15 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 loud-speaker.

(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 loud-speaker, as follows—

- | | |
|---|--|
| <p>(i) indien hy 250 passasiers of minder aan boord het of gesertifiseer is om hierdie getal te vervoer, altesaam minstens 8 luisterure per dag;</p> <p>(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 opeenvolgende hawens, altesaam minstens 16 luisterure per dag, en in hierdie geval moet die skip minstens twee radio-offisiere aan boord hê;</p> <p>(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 8 luisterure per dag.</p> <p>(c) (i) Elke vragskip wat ooreenkomsdig 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 koptelefoon of 'n luidspreker gebruik, altesaam minstens 8 uur per dag op die radiotelegraafnoof-frekvensie 'n luisterdiens handhaaf. Op vragsskepe van 1,600 ton bruto tonnemaat en meer maar minder as 3,500 ton bruto tonnemaat kan Administrasies egter vir 'n tydperk van drie jaar vanaf die datum waarop die huidige Konvensie in werking tree, toelaat dat die luisterure tot altesaam minstens 2 uur per dag beperk word.</p> <p>(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 koptelefoon of 'n luidspreker gebruik, 'n luisterdiens op die radiotelegraafnoof-frekvensie 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 8 uur per dag voor te skryf.</p> <p>(d) Gedurende die tydperk wanneer 'n radio-offisier ooreenkomsdig hierdie regulasie op die radiotelegraafnoof-frekvensie moet luister, mag die radio-offisier hierdie luisterdiens onderbreek terwyl hy die verkeer op ander frekvensies behartig of ander noodsaklike radiodienste verrig, maar wel slegs wanneer dit ondoenlik is om deur middel van 'n gedeelde koptelefoon of luidspreker te luister. Die luisterdiens moet altyd deur 'n radio-offisier met 'n koptelefoon of 'n luidspreker gehandhaaf word gedurende die stilteperiodes waarvoor daar in die Radioregulasies voorsiening gemaak word.</p> <p>(e) Op alle skepe wat met 'n radiotelegraaf-outo-alarm toegerus is, moet hierdie radiotelegraaf-outo-alarm, terwyl die skip op see is, in werking wees gedurende die tye wanneer daar nie ooreenkomsdig paragraaf (b), (c) of (d) van hierdie regulasie geluister word nie en, waar doenlik, gedurende rigtingbepalingsverrigtinge.</p> <p>(f) Die luistertye waarvoor by hierdie regulasie voor-siening 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.</p> | <p>(i) if carrying or certificated to carry 250 passengers or less, at least 8 hours listening a day in the aggregate;</p> <p>(ii) if carrying or certificated to carry more than 250 passengers and engaged on a voyage exceeding 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;</p> <p>(iii) if carrying or certificated to carry more than 250 passengers and engaged on a voyage of less than 16 hours duration between two consecutive ports, at least 8 hours listening a day in the aggregate.</p> <p>(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 loud-speaker, for at least 8 hours a day in the aggregate. However, Administrations may on cargo ships of 1,600 tons gross tonnage and upwards but less than 3,500 tons gross tonnage permit the hours of listening to be limited to not less than 2 hours a day in the aggregate for a period of three years from the date of coming into force of the present Convention.</p> <p>(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 loud-speaker, 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.</p> <p>(d) 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 loud-speaker. The listening watch shall always be maintained by a radio officer using headphones or loud-speaker during the silence periods provided for by the Radio Regulations.</p> <p>(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.</p> <p>(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.</p> |
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REGULASIE 7.

Luisterdiens—Radiotelefonië

(a) Elke skip wat ooreenkomsdig regulasie 4 van hierdie hoofstuk met 'n radiotelefonstasie toegerus is, moet veiligheidshalwe minstens een radiotelefonoperateur aan boord hê (wat die gesagvoerder, 'n offisier of 'n beman-

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

ningslid in besit van slegs 'n radiotelefoniesertifikaat kan wees) en moet behoudens die bepalings van paragraaf (b) van hierdie regulasie, terwyl hy op see is, op die plek aan boord vanwaar die skip gewoonlik genavigeer word, met behulp van 'n luidspreker of ander gesikte middel 'n onafgebroke luisterdiens op die radiotelefoonnoofdfrekwensie handhaaf.

(b) Die luisterdiens kan onderbreek word—

- (i) wanneer die ontvangsuitsrusting vir verkeer op 'n ander frekwensie gebruik word en 'n tweede ontvanger nie beskikbaar is nie; of
- (ii) wanneer toestande na die mening van die gesagvoerder sodanig is dat handhawing van die luisterdiens inbreuk sal maak op die veilige navigasie van die skip.

Die luisterdiens moet egter sover moontlik gehandhaaf word gedurende die stilteperiodes waarvoor daar in die Radioregulasies voorsiening gemaak word.

DEEL C.—TEGNIESE VEREISTES

REGULASIE 8

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 einde 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.

(c) Die slaapakkommodasie van minstens een radiooffisier 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, indien daar 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 hersteldoelindes.

(f) 'n Betroubare uurwerk met 'n wyserplaat van minstens vyf duim (of 12.5 sentimeters) in deursnee en 'n konsentriese sekondewyser, en met die stilteperiodes in die Radioregulasies voorgeskryf vir die radiotelegraafdiens op sy voorwand gemerk, moet verskaf word. Hy moet stewig in die radiotelegraafbedienkamer in so 'n posisie gemonteer word dat die hele wyserplaat maklik en noukeurig 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 reserwe-energiebron vereis by subparagraph (iii) van paragraaf (a) van regulasie 9 van

of the crew holding only a certificate for radiotelephony) and shall, subject to the provisions of paragraph (b) of this Regulation, while at sea, maintain continuous listening watch on the radiotelephone distress frequency, in the place on board from which the ship is usually navigated, using a loud-speaker or other appropriate means.

(b) Listening may be discontinued—

- (i) when the receiving equipment is being used for traffic on another frequency and a second receiver is not available; or
- (ii) 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.

Listening watch should, however, as far as possible be maintained during the silence periods provided for in the Radio Regulations.

PART C.—TECHNICAL REQUIREMENTS

REGULATION 8

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.

(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 five inches (or 12.5 centimetres) 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 (iii) of paragraph (a) of Regulation 9 of this Chapter, be controlled

hierdie hoofstuk, beheer word deur middel van tweewegskakelaars naby die hoofgang na die radiotelegraafbedienkamer en by die radiotelegraafbedienpositie, tensy die aanleg van die radiotelegraafbedienkamer dit nie regverdig nie. Hierdie sakelaars moet duidelik gëtiketteer word om hul doel aan te duif.

(h) Of 'n elektriese inspeksielamp wat vanaf die reserwe-energiebron vereis by subparagraph (iii) van paraagraaf (a) van regulasie 9 van hierdie hoofstuk bedien word en met 'n buigsame leiding van voldoende lengte toegerus is, of '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 noordradiotelegraafbedienkamer verskaf is, is die bepalings van paragrawe (d), (e), (f), (g) en (h) van hierdie regulasie daarop van toepassing.

REGULASIE 9

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;
- (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 aangebring word; met dien verstande dat die Administrasie enige skip van die bepaling betreffende 'n reserweantenne 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 antennendraad 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, indien 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 radiotelegraafnoofrekvensie uit te send deur gebruik te maak van 'n klas uitsending wat in die Radio-regulasies vir daardie frekvensie toegewys is. Daarbenewens moet die hoofsender in staat wees om op minstens twee van die frekvensies uit te send en om gebruik te maak van 'n klas uitsending wat ooreenkomsdig die Radioregulasies gebruik mag word vir die uitsending van

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 sub-paragraph (iii) of paragraph (a) of Regulation 9 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 9

Radiotelegraph Installations

(a) Except as otherwise expressly provided in this Regulation:—

- (i) The radiotelegraph station shall include a main installation and a reserve installation, electrically separate and electrically independent of each other.
- (ii) The main installation shall include a main transmitter, main 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 aerial shall be provided and installed, provided that the Administration may except any ship from the provision of a reserve aerial if it is satisfied that the fitting of such an aerial is impracticable or unreasonable, but in such case a suitable spare aerial completely assembled for immediate installation shall be carried. In addition, sufficient aerial wire and insulators shall in all cases be provided to enable a suitable aerial to be erected.

The main aerial, 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 aerial, and the reserve aerial if one is fitted.

(ii) The main and reserve receivers shall be capable of being quickly connected with any aerial 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 of the frequencies, and of using a class of emission, which, in accordance with the Radio Regulations, may be used for the transmission of safety messages in the bands

veiligheidsberigte in die bande tussen 405 kc/s en 535 kc/s. Die reserwesender kan bestaan uit 'n skip se noodsender soos omskryf in en waarvan die gebruik beperk word by die Radioregulasiës.

(f) Indien gemoduleerde uitsending by die Radioregulasiës voorgeskryf word, moet die hoof- en reserwesenders 'n modulasiediepte van minstens 70 persent en 'n toonfrekwensie tussen 450 en 1,350 periodes per sekonde hê.

(g) Die hoof- en reserwesenders moet, wanneer hulle aan die hoofantenne gekoppel is, 'n minimum normale reikwydte hê soos hieronder aangegee, d.w.s. hulle moet in staat wees om gedurende die dag en onder normale toestande en omstandighede oor die aangegewe 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 myle	
	Hoofsender	Reserwesender
Alle passasiersskepe en vrag-skepe van 1,600 ton bruto tonnemaat en meer	150	100
Vragsskepe kleiner as 1,600 ton bruto tonnemaat	100	75

(h) (i) Die hoof- en reserwe-ontvangers moet in staat wees om die radiotelegraafnoofrekwensie en die klas uitsending te ontvang wat in die Radioregulasiës 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.

* By afwesigheid van 'n direkte veldsterktemeting kan onderstaande gegewens gebruik word as 'n leidraad om die normale reikwydte by benadering te bepaal:

Normale reikwydte in myle	Meter- ampères†	Totale antennevermoë (watt)‡
200	128	200
175	102	125
150	76	71
125	58	41
100	45	25
75	34	14

† 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.

‡ 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 antenneverweerstand.

between 405 kc/s and 535 kc/s. 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 cycles per second.

(g) The main and reserve transmitters shall, when connected to the main aerial, 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

(h) (i) The main and reserve receivers shall be capable of receiving the radiotelegraph distress frequency and the class 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.

* 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:

Normal range in miles	Metre-amperes†	Total aerial power (watts)‡
200	128	200
175	102	125
150	76	71
125	58	41
100	45	25
75	34	14

† This figure represents the product of the maximum height of the aerial above the deepest load water line in metres and the aerial 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

$$\frac{\text{effective aerial height}}{\text{maximum aerial height}} = 0.47$$

This ratio varies with local conditions of the aerial and may vary between about 0.3 and 0.7.

‡ The values given in the third column of the table correspond to an average value of the ratio

$$\frac{\text{radiated aerial power}}{\text{total aerial power}} = 0.08$$

This ratio varies considerably according to the values of effective aerial height and aerial resistance.

(iii) Vir 'n tydperk van hoogstens vyf jaar vanaf die datum waarop die huidige Konvensie in werking tree kan die radiotelegraaf-outo-alarmontvanger as die reserwe-ontvanger gebruik word indien hy in staat is om doeltreffend in 'n koptelefoon of 'n luidspreker, waarmee hy vir hierdie doel verbind is, seine oor te bring. Wanneer hy aldus gebruik word, moet hy by die reserwe-energiebron aangesluit wees.

(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 bedra. Behalwe in gevalle waar 'n radiotelegraaf-outo-alarmontvanger vir dié doel gebruik word, moet die reserwe-ontvanger gevoelig genoeg wees om sulke seine voort te bring wanneer die ontvangerinset slegs 100 mikrovolts bedra.

(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 paraagraaf (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 aangeslange 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 aangeslange 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. Die Administrasie kan die toepassing van die vereiste betreffende 'n reserwe-energiebron vir 'n tydperk van hoogstens drie jaar vanaf die datum waarop die huidige Konvensie in werking tree, uitstel in die geval van bestaande installasies op dié vragsskep van 500 ton brutto tonnemaat en meer maar minder as 1,600 ton brutto tonnemaat wat voor die datum waarop die huidige Konvensie in werking tree, vrygestel was van die vereiste dat 'n reserwe-energiebron verskaf word.

(l) Die reserwe-energiebron moet by voorkeur bestaan uit akkumulatorbatterye, wat vanaf die skip se elektriese stelsel gelaai kan word, en moet onder alle omstandighede vinnig in werking gestel kan word en die reserwerender en -ontvanger onder normale dienstoestande beweens enige van die addisionele belastings genoem in paragrawe (m) en (n) van hierdie regulasie* minstens ses uur lank onafgebroke kan laat werk.

(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 8 van hierdie hoofstuk;
- (iii) die rigtingsoeker;
- (iv) enige toestel, voorgeskryf in die Radioregulasies, om oorskakeling van uitsending na ontvangs, en omgekeerd, toe te laat.

*Ten einde die hoeveelheid elektrisiteit te bepaal 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.

(iii) For a period not exceeding five years from the date of coming into force of the present Convention, the radiotelegraph auto alarm receiver may be used as the reserve receiver if capable of effectively producing signals in headphones or a loud-speaker with which it is connected for this purpose. When so used, it shall be connected to the reserve source of energy.

(i) The main receiver shall have sufficient sensitivity to produce signals in headphones or by means of a loud-speaker when the receiver input is as low as 50 microvolts. The reserve receiver shall, except in cases where a radiotelegraph auto alarm receiver is used for this purpose, 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 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. The Administration may delay the application of the requirement for a reserve source of energy for a period not exceeding three years from the date of coming into force of the present Convention, in the case of existing installations on those cargo ships of 500 tons gross tonnage and upwards but less than 1,600 tons gross tonnage which were excepted, prior to the date of the coming into force of the present Convention, from the requirement to be provided with a reserve source of energy.

(l) 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.*

(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 8 of this Chapter;
- (iii) the direction-finder;
- (iv) any device, prescribed by the Radio Regulations, to permit change-over from transmission to reception and vice versa.

* 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.

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) Neteenstaande 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 bootsdek, op voorwaarde dat hierdie stroombane indien nodig geredelik ontkoppel kan word en dat die energiebron se vermoë voldoende is om die addisionele belasting of belastings te dra.

(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 hul normale toestand van volle lading gebring word.

(q) Alles moet in die werk gestel word om radio-stuurings 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 antenes aan uitsaai-ontvangers 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 radiotelegraafalarmseinsleuteltoestel verskaf word wat in staat is om die hoof- en reserwesenders te sleutel 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 reserwe-antenne, indien daar een is, getoets word. Die reserwe-energiebron 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) Neteenstaande die bepaling van regulasie 4 van hierdie hoofstuk kan die Administrasie in die geval van vragskepe van minder as 1,600 ton bruto tonnemaaat 'n minder strenge toepassing van die volle vereistes van regulasie 8 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 14 en regulasie 15 van hierdie hoofstuk voorgeskryf word vir radiotelefoonstasies, vir sover dié van toepassing is nie. In die besonder is dit nie nodig dat die Administrasie in die geval van vragskepe van 300 ton bruto tonnemaaat en meer maar minder as 500 ton bruto tonnemaaat 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;

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.

(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 aerials 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 any time 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 aerial, and at least once during each voyage using the reserve aerial if installed. The reserve source of energy shall also be tested daily.

(t) All equipments forming part of the radiotelegraph installation shall be reliable, and shall be so constructed that they are readily accessible for maintenance purposes.

(u) Notwithstanding the provision of Regulation 4 of this Chapter, the Administration may, in the case of cargo ships below 1,600 tons gross tonnage, relax the full requirements of Regulation 8 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 14 and Regulation 15 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 aerial against breakage by whipping;

- (iv) dat die kommunikasiemiddels tussen die radiotelegraafstasie en die brug onafhanklik van die hoof-kommunikasiestelsel moet wees;
- (v) dat die reikwydte van die sender meer as 75 myl moet wees.

REGULASIE 10.

Radiotelegraaf-outo-alarms

(a) Enige radiotelegraaf-outo-alarm wat geïnstalleer word na die datum waarop die huidige Konvensie in werking tree, 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 radiotelegraaf-noodfrekwensie deur die sender van 'n kusstasie, 'n skip se noodsender of 'n reddingsvaartuigsender wat ooreenkomsdig die Radioregulasies werk, op voorwaarde dat die sterkte van die sein by die ontvangerinset groter is as 100 mikrovolts en kleiner is as 1 volt.
- (ii) By afwesigheid van steuring van watter aard ook al moet hy in werking gestel word deur of drie of vier opeenvolgende strepeanneer die strepe in lengte wissel van 3.5 tot so na as moontlik aan 6 sekondes en die russeine in lengte wissel tussen 1.5 sekonde en die laagste bereikbare waarde, wat by voorkeur nie groter as 10 millisekondes moet wees nie.
- (iii) Hy mag nie in werking gestel word deur lugsteurings of 'n ander sein as die radiotelegraaf-alarmsein nie, op voorwaarde dat die ontvange seine nie inderdaad 'n sein vorm wat val binne die toleransiegrens wat in (ii) aangegee word nie.
- (iv) Die selektiwiteit van die radiotelegraaf-outo-alarm moet sodanig wees dat oor 'n band wat tot minstens 4 kc/s en hoogstens 8 kc/s aan elke kant van die radiotelegraafnoodfrekwensie reik, 'n feitlike eenvormige gevoeligheid en buite hierdie band 'n gevoeligheid verskaf word wat so vinnig as moontlik afneem in ooreenstemming met die beste werktuigmiddige gebruik.
- (v) Indien moontlik moet die radiotelegraaf-outo-alarm homself by die aanwesigheid van lugsteurings of steurende seine otomaties 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 werking gestel word of indien die apparaat defek raak, moet die radiotelegraaf-outo-alarm aanhouwend 'n waarskuwing in die radiotelegraafbedienkamer, in die radio-offisier se slaapakkommodesie 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 radiotelegraaf-noodfrekwensie ingestel is, asook 'n sleuteltoestel waarmee 'n radiotelegraafalarmsein van die minimum sterkte soos in (i) aangedui, voortgebring word. 'n Midde moet ook verskaf word om koptelefone aan te sluit om na seine te lusiter wat op die radiotelegraaf-outo-alarm ontvang word.

- (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.

REGULATION 10

Radiotelegraph Auto Alarms

(a) Any radiotelegraph auto alarm installed after the date of coming into force of the present Convention 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 (ii).
- (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 kc/s and not more than 8 kc/s 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 radiotelegraph 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 (i) 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) Die radiotelegraaf-outo-alarm moet bestand wees teen trillings, vogtigheid en temperatuurverandering wat gelyk is aan die strawwe toestande wat aan boord van skepe ter see ondervind word, en moet onder 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 toets onder diensomstandighede gelyk aan dié wat in die praktyk voorkom, daarvan oortuig dat die apparaat aan die voorskrifte van paragraaf (a) van hierdie regulasie voldoen.

(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 orde is nie, moet die radio-offisier die feit aan die gesagvoerder of aan die offisier op wag op die brug mededeel.

(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.

(f) Radiotelegraaf-outo-alarms wat nie aan die vereistes van paragraaf (a) van hierdie regulasie voldoen nie, moet binne vier jaar vanaf die datum waarop die huidige Konvensie in werking tree, vervang word deur radiotelegraaf-outo-alarms wat wel daaraan voldoen.

REGULASIE 11

Rigtingsoekers

(a) Die rigtingsbepalingapparaat vereis by regulasie 12 van hoofstuk V moet doeltreffend en in staat wees om seine met 'n minimum ontvangerruis te ontvang en om peilings te neem waaruit die ware peiling en rigting vasgestel kan word.

(b) Hy moet in staat wees om seine te ontvang op die radiotelegraaffrekwensies wat by die Radioregulasies vir noodseine en rigtingbepaling en vir maritiemeradiobakens, toege wys is.

(c) By afwesigheid van steurings moet die rigtingsbepalingapparaat gevoelig genoeg wees om noukeurige peilings op 'n sein met 'n veldsterkte van selfs so laag as 50 mikrovolt per meter moontlik te maak.

(d) Vir sover doenlik moet die rigtingsbepalingapparaat so geleë wees dat doeltreffende peiling so min as moontlik deur meganiese of ander geraas belemmer sal word.

(e) Vir sover doenlik moet die rigtingbepalingsantennestelsel op so 'n wyse opgerig word dat doeltreffende peiling so min as moontlik belemmer sal word deur die nabijheid van ander antennes, laaibome, hysdrade of ander groot metaalvoorwerpe.

(f) Tussen die rigtingsoeker en die brug moet 'n doeltreffende tweerigtingstelsel vir oproepe en mondelinge kommunikasie verskaf word.

(g) 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 wanner 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. Aanteking moet gehou word van die kalibrerings asook van die kontrolering van hul noukeurigheid.

(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.

(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 aerial 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 aerial, shall not affect the accuracy of the direction-finder.

(f) Radiotelegraph auto alarms which do not comply with the requirements of paragraph (a) of this Regulation shall be replaced by radiotelegraph auto alarms which do so comply within four years from the date of coming into force of the present Convention.

REGULATION 11

Direction-Finders

(a) 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.

(b) 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.

(c) 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.

(d) 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.

(e) As far as is practicable, the direction-finding aerial 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 aerials, derricks, wire halyards or other large metal objects.

(f) An efficient two-way means of calling and voice communication shall be provided between the direction-finder and the bridge.

(g) 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 aerials 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.

REGULASIE 12

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 so 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 kc/s en 27,500 kc/s 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 periodes per sekonde hê.

(d) Benewens 'n sleutel vir uitsending met die hand, moet die sender toegerus wees met 'n automatiese sleutel-toestel 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 9 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 akkumulator-battery van voldoende vermoë om die sender onder 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 daar die 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 vlieer of 'n ballon verskaf word.

(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 13

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 so ontwerp wees dat hy in 'n noodgeval deur 'n ongeskoolde persoon gebruik kan word.

*By afwesigheid van 'n veldsterktemeting kan 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.

REGULATION 12

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 kc/s and 27,500 kc/s.

(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 cycles per second.

(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 9 of this Chapter) of 25 miles using the fixed aerial.*

(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 aerial shall be provided together with means for supporting it at the maximum practicable height. In addition an aerial supported by a kite or balloon shall be provided if practicable.

(j) At sea a radio officer shall at weekly intervals test the transmitter using a suitable artificial aerial, and shall bring the battery up to full charge if it is of a type which requires charging.

REGULATION 13

Portable Radio Apparatus for Survival Craft

(a) The apparatus required by Regulation 13 of Chapter III shall include a transmitter, a receiver, an aerial and a source of energy. It shall be so designed that it can be used in an emergency by an unskilled person.

*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 aerial above the water line and the aerial current (R.M.S. value) is 10 metre-amperes.

(b) Die apparaat moet maklik draagbaar en waterdig wees, in seawater 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 kc/s en 27,500 kc/s op die radiotelegraaffrekvensie 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 radiotelefoonloodsfrekvensie 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 radiotelegraaffrekvensie wat by die Radioregulasies in die bande tussen 4,000 kc/s en 27,500 kc/s 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 periodes per sekonde hê.

(e) Benewens 'n sleutel vir uitsending met die hand, moet die sender toegerus woes met 'n outomatisse sleutel-toestel vir die uitsending van die radiotelegraafalarm- en -noodseine. Indien die sender in staat is om uit te send op die radiotelefoonloodsfrekvensie, moet hy vir die uitsending van die radiotelefoonalarmsein toegerus wees met 'n outomatisse toestel wat aan die vereistes van paragraaf (e) van regulasie 15 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 radiotelefoonloodsfrekvensie 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 of selfstandig wees of 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.

(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 voorwaarde 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 radiotelefoonoperator, na gelang van die geval, die sender by tussenposes 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.

(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.

* 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 kc/s in 'n kunsantenne met 'n effektiwe weerstand van 15 ohms en 100×10^{12} farads kapasitansie in serie. Die modulasiediepte moet minstens 70 persent wees.

(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 kc/s and 27,500 kc/s, 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 the 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 kc/s and 27,500 kc/s.

(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 emissions have a note frequency between 450 and 1,350 cycles per second.

(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 15 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 the class of emission assigned by the Radio Regulations for that frequency.

(g) The aerial 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 aerial supported by a kite or balloon shall be provided if practicable.

(h) The transmitter shall supply an adequate radio frequency power* to the aerial 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 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 aerial, 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 coming into force of the present Convention.

* 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 radio-frequency output of at least 2.0 watts (A2 emission) at 500 kc/s into an artificial aerial 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.

REGULASIE 14

Radiotelefoonstasies

(a) Die radiotelefoonstasie moet in die boonste deel van die skip wees en moet so 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, beverdigend 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 radiotelefoonnoordprosedure moet vertoon word waar dit goed vanaf die radiotelefoonbedienplek gesien kan word.

REGULASIES 15

Radiotefooninstallasies

(a) Die radiotefooninstallasie moet 'n sender, 'n ontvanger en 'n energiebron insluit.

(b) Die sender moet op die radiotelefoonnoordfrekwensie kan uitsend en moet ook in staat wees om op minstens een ander frekwensie in die bande tussen 1,605 kc/s en 2,850 kc/s uit te send deur gebruik te maak van die klas uitsending wat in die Radioregulasies vir hierdie frekwensies toegewys is. In normale werking moet die sender 'n modulasiediepte van minstens 70 persent op sy spitsintensiteit hê.

(c) (i) In die geval van vragsskepe van 500 ton bruto tonnemaat en meer maar minder as 1,600 ton bruto tonnemaat moet die sender 'n minimum normale reikwydte van 150 myl hê, d.w.s. hy moet in staat wees om oor hierdie afstand duidelik waarneembare seine van skip tot skip gedurende die dag en onder normale toestande en omstandighede uit te send.* (Duidelik waarneembare seine sal onder 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 bedra.)

(ii) In die geval van vragsskepe van 300 ton bruto tonnemaat en meer maar minder as 500 ton bruto tonnemaat— moet die sender in die geval van bestaande installasies 'n minimum normale reikwydte van minstens 75 myl hê;

moet die sender in die geval van nuwe installasies 'n vermoe van minstens 15 watt (ongemoduleerde draaggolf) in die antenne kan ontwikkel.

(d) Die sender moet toegerus wees met 'n toestel om die radiotelefoonalarmsein outomatis op te wek. Die toestel moet te eniger tyd buite werking gestel kan word ten einde die onmiddellike uitsending van 'n noodberig moontlik te maak. Die Administrasie kan die toepassing van die vereiste betreffende die toestel in die geval van bestaande installasies hoogstens drie jaar lank vanaf die inwerktrededatum van die huidige Konvensie uitstel.

* By die afwesigheid van veldsterktemetings kan aangeneem word dat hierdie reikwydte verkry sal word deur 'n vermoe van 15 watt (ongemoduleerde draaggolf) in die antenne met 'n antenerendement van 27 persent.

REGULATION 14

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 15

Radiotelephone Installations

(a) The radiotelephone installation shall include a transmitter, a receiver and a source of energy.

(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 kc/s and 2,850 kc/s, using the class of emission assigned by the Radio Regulations for these frequencies. In normal operation the transmitter shall have a depth of modulation of at least 70 per cent at peak intensity.

(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—

for existing installations the transmitter shall have a minimum normal range of at least 75 miles;

for new installations the transmitter shall produce a power in the aerial 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. 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. The Administration may delay the application of the requirement for the device in the case of existing installations for a period not exceeding three years from the date of coming into force of the present Convention.

* In the absence of field strength measurements, it may be assumed that this range will be obtained by a power in the aerial of 15 watts (unmodulated carrier) with an aerial efficiency of 27 per cent.

(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 pause tussen opeenvolgende tone moet hoogstens 50 millisekondes wees.
- (iv) Die verhouding van die amplitude van die sterker toon tot dié van die swakker toon moet 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 radiotelefoonnoofrekvensie en minstens nog een frekwensie wat in die bande tussen 1,605 kc/s en 2,850 kc/s vir maritieme radiotelefonstasies beskikbaar is, te ontvang wanneer gebruik gemaak word van die klas uitsending wat in die Radioregulasies vir hierdie frekwensies 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 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 ontvanger wat gebruik word om die luisterdiens op die radiotelefoonnoofrekvensie te handhaaf, moet vooraf op hierdie frekwensie ingestel word of moet so ingerig word dat instelling op hierdie frekwensie vinnig en akkuraat kan geskied en dat die ontvanger, wanneer hy op hierdie frekwensie ingestel is, nie per ongeluk maklik verstem kan word nie. Die Administrasie kan die toepassing van die vereistes van hierdie paragraaf in die geval van bestaande installasies hoogstens drie jaar lank vanaf die inwerkintredendatum van die huidige Konvensie uitstel.

(h) Ten einde vinnige 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 onder normale werksomstandighede minstens ses uur lank onafgebroke te laat werk.* In die geval van installasies op vragskepe van 500 ton bruto tonnemaat en meer maar minder 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, mag hy slegs gebruik word vir die verskaffing van elektrisiteit vir—

- (i) die radiotelefooninstallasie;
- (ii) die noodlig wat by paragraaf (d) van regulasie 14 van hierdie hoofstuk vereis word; en

* Ten einde die elektriese belasting te bepaal wat verskaf moet word deur batterye waarvoor vereis word dat hulle 'n reserwevermoë vir ses uur moet hê, word die volgende formule as leidraad aanbeveel—

$\frac{1}{2}$ van die stroomverbruik nodig vir spraakuitsending;
+ stroomverbruik van ontvanger;
+ stroomverbruik van alle addisionele belastings waaraan die batterye in tyd van nood energie mag verskaf.

(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 kc/s and 2,850 kc/s, using the class of emission assigned by the Radio Regulations for these frequencies. In addition the receiver shall permit the reception of such other frequencies, using the class of emission assigned by the Radio Regulations, as are used for the transmission by radiotelephony of meteorological messages and such other 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 receiver used for maintaining watch on the radiotelephone distress frequency shall be preset to this frequency, or so arranged that setting to the frequency may be carried out in a rapid and precise manner and that, when set to this frequency, the receiver shall not easily be detuned accidentally. The Administration may delay the application of the requirements of this paragraph in the case of existing installations for a period not exceeding three years from the date of coming into force of the present Convention.

(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 14 of this Chapter; and

* 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:

$\frac{1}{2}$ 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.

(iii) die toestel wat by paragraaf (d) van hierdie regulasie vir die opwekking van die radiotelefoon-alarmsein vereis word.

(k) Nieteenstande die bepalings van paragraaf (j) van hierdie regulasie kan die Administrasie magtiging verleen dat die reserwe-energiebron, indien verskaf, gebruik word vir die rigtingsoeker, indien aangebring, 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 verskafe 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 tonnemaat en meer maar minder 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.

DEEL D—RADIODAGBOEK

REGULASIE 16

Radiodagboek

(a) Die radiodagboek (dagboek van die radiodiens) wat in die Radioregulasies vereis word vir 'n skip wat met 'n radiotelegraafstasie toegerus is ooreenkomsdig 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 deur die Administrasie voorgeskryf is;
- (iii) 'n daaglikske verklaring dat daar aan die voorskrifte van paragraaf (p) van regulasie 9 van hierdie hoofstuk voldoen is;
- (iv) besonderhede van die toetse van die reserwesender en reserwe-energiebron wat kragtens paragraaf (s) van regulasie 9 van hierdie hoofstuk uitgevoer is;
- (v) op skepe wat met 'n radiotelegraaf-auto-alarm toegerus is, besonderhede van toetse wat kragtens paragraaf (c) van regulasie 10 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 ooreenkomsdig paragraaf (j) van regulasie 12 van hierdie hoofstuk vereis word, en besonderhede van die toetse wat ooreenkomsdig 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 ooreenkomsdig paragraaf (i) van regulasie 13 van hierdie hoofstuk

(iii) the device required by paragraph (d) of this Regulation, for generating the radiotelephone alarm signal.

(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 aerial shall be provided and installed and, if suspended between supports liable to whipping, shall in the case of ships of 500 tons gross tonnage and upwards but less than 1,600 tons gross tonnage be protected against breakage. In addition, there shall be a spare aerial completely assembled for immediate replacement or, where this is not practicable, sufficient aerial wire and insulators to enable a spare aerial to be erected. The necessary tools to erect an aerial shall also be provided.

PART D.—RADIO LOGS

REGULATION 16

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 9 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 9 of this Chapter;
- (v) in ships fitted with a radiotelegraph auto alarm details of tests made under paragraph (c) of Regulation 10 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 12 of this Chapter, and details of the tests required by that paragraph in respect of the transmitters fitted in motor life-boats;
- (vii) details of the maintenance of the batteries, including a record of the charging (if applicable) required by paragraph (i) of Regulation 13 of this Chapter, and

vereis word, en besonderhede van die toetse wat ooreenkomsdig daardie paragraaf vereis word ten opsigte van draagbare radio-apparaat vir reddingsvaartuie.

(b) Die radiodagboek (dagboek van die radiodiens) wat by die Radioregulasies vereis word vir 'n skip wat ooreenkomsdig 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, offisier of bemanningslid wat 'n luisterdiens waarneem ooreenkomsdig 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 (i) van regulasie 15 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 13 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 gevaaarlike ys, 'n gevaaarlike wrak of enige ander regstreekse gevaaar vir skeepvaart, of 'n tropiese storm teëkom, of lugtemperatuur 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 middelle tot sy beskikking mee te deel aan skepe in die nabijheid en ook aan die bevoegde overheid op die eerste punt op die kus waarmee hy in verbinding kan tree.

details of the tests required by that paragraph in respect of portable radio apparatus for survival craft.

(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 (i) of Regulation 15 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 13 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 with which he can communicate.

Die vorm waarin die inligting gestuur word, is nie voor- geskryf 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) ontvang word, dit onverwyd onder die aandag van die betrokkenes gebring en aan ander belanghebbende regerings meegehou word.

(c) Die stuur van berigte betreffende die aangegewe gevare kos die betrokke skepe nik.

(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 om- skryf in regulasie 2 van hoofstuk IV.

REGULASIE 3

Inligting wat in gevaaerberigte opgeneem moet word

Ondervermelde inligting word in gevaaerberigte vereis:

- (a) Ys, wrakte en ander onmiddellike gevare vir die skeepvaart.
- (i) die aard van die waargenome ys, wrak of gevaaar;
 - (ii) die posisie van die ys, wrak of gevaaar toe dit laas gesien is;
 - (iii) die datum en die tyd (Greenwichtyd) toe die gevaaar 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 millibars, duim of millimeters, 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, ontstuitig, 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) Later waarnemings. Wanneer 'n gesagvoerder 'n tropiese of ander gevaaerlike 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.

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) 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, inches, or millimetres, 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.

(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) melding gemaak word; wanneer so 'n storm teengekom word, moet die berig inligting bevat wat aan dié genoem in paragraaf (b) soortgelyk is maar die besonderhede betreffende die see en deining uitsluit.

(e) Lugtemperatuur onder vriespunt gepaard met wind 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 4605 N., 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. 2204 N., 11354 O. Barometer verbeter 994 millibars, dalende neiging 6 millibars. 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 .015 duim. Wind N.O., krag 8, veervuldige 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 millimeters, dalende neiging 5 millimeters. Wind S. ten W., krag 5. Koers 300, 8 knope.

TTT Storm.—Tyfoon 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 millibars, dalende neiging 4 millibars. 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 hoogtegraad van noukeurigheid aanmoedig en moet op versoek die nagaan van sulke instrumente vergemaklik.

(b) Die Kontrakterende Regerings verbind hulle in die besonder om saam te werk om die onderstaande meteorologiese reëlings vir sover doenlik toe te pas:—

(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); when such a storm is encountered, the message should contain similar information to that listed under paragraph (b) 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 (Greenwich 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. 2204 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 .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.

(b) In particular, the Contracting Governments undertake to co-operate in carrying out, as far as practicable, the following meteorological arrangements:—

- (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 daaglik s deur middel van die radio weerberigte uit te send wat vir die skeepvaart geskik is en wat gevawens omtrent bestaande weer, golwe en ys, asook voorspellings 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 faksimile-weerkaarte aan te moedig.
- (iii) Om sodanige publikasies op te stel en uit te gee as wat vir die doeltreffende uitvoering van meteorologiese werk op see nodig is, en om, indien moontlik, reëlings te tref om daagliks weerkaarte vir die inligting van vertrekende skepe te publiseer en beskikbaar te stel.
- (iv) Om reëlings te tref om uitgekoose 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 hoofstandaardte 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 nabijheid is. Skepe moet aangemoedig word om wanneer hulle hulle nabij '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 skeepsofficiere 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 nabijheid en ook kusradiostasies daarvan in kennis te stel.
- (vii) Om pogings aan te wend om 'n uniforme procedure betreffende die reeds genoemde internasjonale 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 voorseening gemaak word, moet verstrek word in die uitsendvorm en uitgesend word in die voorrangsorte 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.

(d) Weervoorspellings, waarskuwings, sinoptiese en ander meteorologiese verslae bedoel vir skepe moet ooreenkomsdig 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.

- (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 Organization, 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.

(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.

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 suid-oostelike, suidelike en suidwestelike grense van die gebiede waar ysberge in die nabijheid van die Groot Banke van Newfoundland voorkom, bewaak word met die doel om verbyvarende skepe van die omvang van hierdie gevarelike 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 volgehoud 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 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 grondslag 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 tot op 1 September na die datum waarop hy kennis gee van sy voorname 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 genoemde 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 ooreenkomsdig hul onderlinge belang reël.

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 region 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 its current contribution up to the 1 September following the date 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) Die bydraende Regerings het die reg om die bepallings van hierdie regulasie en van regulasie 5 van hierdie hoofstuk van tyd tot tyd by onderlinge instemming te wysig na gelang 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 tussenpose van hoogstens drie jaar deur die bydraende Regerings hersien word. Die beherende Regering moet die nodige stappe vir hierdie doel aanvoer.

REGULASIE 7

Snelheid in die nabijheid van ys

Wanneer die gesagvoerder van 'n skip berig ontvang van die aanwesigheid van ys op of in die nabijheid van die koers van sy skip, moet hy in die nag met 'n matige snelheid daar of sy koers sodanig verander dat hy die gevaregebied deeglik kan vermy.

REGULASIE 8

Noord-Atlantiese roetes

(a) Die gebruik om in albei rigtings oor die Noord-Atlantiese Oseaan erkende roetes te volg en, in die besonder, roetes in konvergerende gebiede aan weerskante van die Noord-Atlantiese Oseaan, het daartoe bygedra dat botsings tussen skepe en teen ysberge vermy word en behoort by alle betrokke skepe aanbeveel te word.

(b) Die keuse van die roetes en die aanvoering van stappe in verband daarmee, en die afbakening van wat konvergerende gebiede uitmaak, word oorgelaat aan die betrokke skeepvaartmaatskappye. Die Kontrakterende Regerings sal die maatskappye op versoek hulp verleen deur alle inligting wat op die roetes betrekking het en in besit van die Regerings is, tot beskikking van die maatskappye te stel.

(c) Die Kontrakterende Regerings verbind hulle om aan die maatskappye die verpligting op te lê om die gereelde roetes wat hulle hul skepe wil laat volg asook alle wysings in hierdie roetes, te publiseer. Hulle sal voorts hul invloed gebruik om die eienaars van alle passasier-skepe wat die Atlantiese Oseaan oorsteek, te beweeg om die erkende roetes te volg, en sal alles in hul vermoë doen om te verseker dat alle skepe hulle in die konvergerende gebiede aan sodanige roetes hou vir sover dit moontlik is. Hulle sal ook die eienaars van alle skepe wat die Atlantiese Oseaan op weg na of van hawens van die Verenigde State of Kanada via die omgewing van die Groot Banke van Newfoundland oorsteek, beweeg om vir sover doenlik die visgronde van Newfoundland noord van 43° noorderbreedte gedurende die visvangseisoen te vermy, en om om gebiede te vaar wat na hul wete of vermoede as gevolg van ys gevaelik is.

(d) Die Regering wat die yswagdiens beheer, word versoen om die betrokke Administrasie in kennis te stel van enige passasier-skip wat elders as op 'n gereelde, erkende of aangekondigde roete opgemerk word, en van enige skip wat die bogenoemde visgronde gedurende die visvangseisoen oorsteek, of wat op weg na of van hawens van die Verenigde State of Kanada deur gebiede vaar in verband waarmee bekend is of die vermoede bestaan dat hulle as gevolg van ys gevaelik is.

(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

North Atlantic Routes

(a) The practice of following recognised routes across the North Atlantic in both directions and, in particular, routes in converging areas of both sides of the North Atlantic, has contributed to the avoidance of collisions between ships and with icebergs, and should be recommended to all ships concerned.

(b) The selection of the routes and the initiation of action with regard to them, and the delineation of what constitutes converging areas, is left to the responsibility of the shipping companies concerned. The Contracting Governments will assist the companies, when requested to do so, by placing at their disposal any information bearing on the routes which may be in the possession of the Governments.

(c) The Contracting Governments undertake to impose on the companies the obligations to give public notice of the regular routes which they propose their ships should follow, and of any changes made in these routes. They will also use their influence to induce the owners of all passenger ships crossing the Atlantic to follow the recognised routes, and will do everything in their power to ensure adherence to such routes in the converging areas by all ships, so far as circumstances will permit. They will also induce the owners of all ships crossing the Atlantic bound to or from ports of the United States or Canada via the vicinity of the Grand Banks of Newfoundland to avoid, as far as practicable, the fishing banks of Newfoundland north of latitude 43° N. during the fishing season, and to pass outside regions known or believed to be endangered by ice.

(d) The Government managing the ice patrol service is requested to report to the Administration concerned any passenger ship which is observed not to be on any regular, recognised or advertised route and any ship which crosses the above mentioned fishing banks during the fishing season, or which when proceeding to or from ports of the United States or Canada passes through regions known or believed to be endangered by ice.

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 verwarr 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 redningsvaartuig 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 gekommanderde 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.

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 hoofelektrisiteitsbron afhanklik is nie.

REGULASIE 12

Radiorigtingbepalingsapparaat

(a) Alle skepe van 1,600 ton bruto tonnemaat en meer moet, wanneer hulle op internasionale reise gebruik word, toegerus wees met 'n radiorigtingbepalingsapparaat wat voldoen aan die bepalings van regulasie 11 van hoofstuk IV.

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 the 23rd September, 1910, particularly the obligation to render assistance imposed by Article 11 of that Convention.

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

Radio Direction-Finding Apparatus

(a) 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 11 of Chapter IV.

(b) Die Administrasie kan, in gebiede waar dit onredelik of onnodig geag word om sulke apparaat aan boord te hê, enige skip van minder as 5,000 ton bruto tonnemaat van hierdie vereiste vrystel, met behoorlike inagneming van die feit dat 'n radiorigtingbepalingsapparaat van waarde is nie alleen as 'n navigasie-instrument nie, maar ook as 'n middel om die posisie van skepe, vliegtuie en reddingsvaartuie te help vasstel.

REGULASIE 13

Bemanning

Die Kontrakterende Regerings verbind hulself, elkeen ten opsigte van sy nasionale skepe, om maatreëls te handhaaf of, indien nodig, te neem 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 geregtig en 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 die dophou van die kus 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 veiligheidsfasilitate 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 reddingsfasilitate en beplande veranderings daarin, indien enige.

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 Geillustreerde 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:*—

Sein

Bedags—Oranje rooksein of gekombineerde lig- en geluidsein (liggewende knalsein) bestaande uit drie enkele seine wat by tussenpose van ongeveer een minuut afgewuur word.

Snags—Vuurpyl met wit sterre bestaande uit drie enkele seine wat by tussenpose van ongeveer een minuut afgewuur word.

Indien nodig, kan die dagseine snags of die nagseine bedags gegee word.

Betekenis

"U word gesien—hulp word so spoedig moontlik verleen." (Herhaling van sulke seine het dieselfde betekenis.)

(b) The Administration may, in areas where it considers it unreasonable or unnecessary for such apparatus to be carried, exempt any ship under 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.

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 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

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.

Signification

"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) *Landingseine vir die leiding van klein bote met bemannings of persone wat in nood verkeer:*—

<i>Sein</i>	<i>Betekenis</i>	<i>Signal</i>	<i>Signification</i>
<i>Bedags</i> —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.	„Dit is die beste plek om te land.”	<i>By day</i> —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.	"This is the best place to land."
<i>Snags</i> —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 fakkels op 'n laer vlak en op 'n lyn met die waarnemer te plaas.	„Om hier te land is hoogs gevaaerlik.”	<i>By night</i> —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.	"Landing here highly dangerous."
<i>Bedags</i> —Horizontale 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.	„Om hier te land is hoogs gevaaerlik. Daar is 'n gunstiger landingsplek in die aangeduide rigting.”	<i>By day</i> —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.	"Landing here highly dangerous. A more favourable location for landing is in the direction indicated."
<i>Snags</i> —Horizontale beweging van 'n wit lig of fakkels of die afvuur van 'n sein met rooi sterre of uitsending van die kodeletter „S” (· · ·) met 'n lig- of geluidseinapparaat.		<i>By night</i> —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.	
<i>Bedags</i> —Horizontale beweging van 'n wit vlag, gevvolg 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” (· · ·), gevvolg 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.		<i>By day</i> —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.	
<i>Snags</i> —Horizontale beweging van 'n wit lig of fakkels, gevvolg deur die wit lig of fakkels op die grond neer te sit en 'n ander wit lig of fakkels 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” (· · ·) gevvolg 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.		<i>By night</i> —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.	

(c) *Seine wat in verband met reddingsapparaat op die kus gebruik moet word:*—

<i>Sein</i>	<i>Betekenis</i>	<i>Signal</i>	<i>Signification</i>
<i>Bedags</i> —Vertikale beweging van 'n wit vlag of van die arms, of die afvuur van 'n sein met groen sterre.	In die algemeen—„Bevestigend”. In die besonder— „Vuurllynn word gehou”. „Stertblok is vasgemaak”. „Tros is vasgemaak”. „Daar is iemand in die broekboei.” „Trek maar.”	<i>By day</i> —Vertical motion of a white flag or the arms 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."
<i>Snags</i> —Vertikale beweging van 'n wit lig of fakkels of die afvuur van 'n sein met groen sterre.	In die algemeen— „Ontkennend”. In die besonder— „Verslap die toue”. „Hou op met trek”.	<i>By night</i> —Vertical motion of a white light or flare or firing of a green star-signal.	
<i>Bedags</i> —Horizontale beweging van 'n wit vlag of arms horisontaal uitgestrek, of die afvuur van 'n sein met rooi sterre.		<i>By day</i> —Horizontal motion of a white flag or arms extended horizontally or firing of a red star-signal.	In general—"Negative." Specifically: "Slack away." "Avast hauling."
<i>Snags</i> —Horizontale beweging van 'n wit lig of fakkels of die afvuur van 'n sein met rooi sterre.		<i>By night</i> —Horizontal motion of a white light or flare or firing of a red star-signal.	

(d) *Seine wat gebruik word deur vliegtuie op soek- en redningsondernemings om skepe rigting te gee na 'n vliegtuig, skip of persoon wat in nood verkeer, (lees verklarende Opmerking hieronder):*—

<i>(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> —

- (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:
—laag vlak agter die bowatervaartuig die volgestroom 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

Skepe op reise in die loop waarvan daar waarskynlik van die dienste van loodse gebruik gemaak sal word, moet aan die volgende vereistes betreffende loodsleer voldoen:—

- (a) Die leer moet in goeie toestand en slegs vir gebruik deur amptenare en ander persone by die skip se aankoms in of vertrek uit 'n hawe en vir die in- en ontskaping van loodse gehou word.
- (b) Die leer moet bevestig word in so 'n posisie dat elke sport stewig teen die kant van die skip rus en sodat die loods veilig en gerieflik toegang tot die skip sal hê nadat hy minstens 5 voet (of 1.5 meters) en hoogstens 30 voet (of 9 meters) geklim het. Net een stuk leer moet gebruik word en dié moet in staat wees om die seevlak in alle normale trimtoestande van die skip te bereik. Wanneer die afstand van die seevlak tot by die punt van toegang tot die skip meer as 30 voet (of 9 meters) is, moet toegang tot die skip vanaf die loodsleer deur middel van 'n valreepleer of ander ewe veilige en gerieflike middel verskaf word.
- (c) Die treetjies van die leer moet minstens 19 duim (of 48 centimeters) lank, $4\frac{1}{2}$ duim (of 11.4 centimeters) wyd en 1 duim (of 2.5 centimeters) dik wees. Die treetjies moet op so 'n wyse verbind word dat dit 'n sterk genoeg leer verseker, waarvan die treetjies horisontaal en minstens 12 duim (of 30.5 centimeters) en hoogstens 15 duim (of 38 centimeters) uit mekaar gehou word.
- (d) 'n Behoorlik bevestigde mantou en 'n veiligheidslyn moet beskikbaar wees, en hulle moet gereed wees vir gebruik indien benodig sou word.
- (e) Daar moet sorg gedra word dat—
(i) 'n verantwoordelike skeepsoffisier toesig hou oor die aanbring van die leer en die inskaping en ontskaping van 'n loods;
(ii) daar vashouplekke is om die loods in staat te stel om veilig en gemaklik van die bo-ent van die leer in die skip of op die dek van die skip oor te stap.
- (f) Indien nodig moet spalke aangebring word op afstande wat sal verhoed dat die leer draai.
- (g) Snags moet 'n lig wat oorboord skyn, beskikbaar wees en gebruik word, en op die plek waar die loods aan boord van die skip gaan, moet die dek behoorlik verlig wees.

- (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—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

Ships engaged on voyages in the course of which pilots are likely to be employed shall comply with the following requirements respecting pilot ladders:—

- (a) The ladder shall be kept in good order and for use only by officials and other persons while a ship is arriving at or leaving a port, and for embarkation and disembarkation of pilots.
- (b) The ladder shall be secured in a position so that each step rests firmly against the ship's side and so that the pilot can gain safe and convenient access to the ship after climbing not less than 5 feet (or 1.5 metres) and not more than 30 feet (or 9 metres). A single length of ladder shall be used capable of reaching sea level in all normal conditions of trim of the ship. Whenever the distance from sea level to the point of access to the ship is more than 30 feet (or 9 metres), access from the pilot ladder to the ship shall be by means of an accommodation ladder or other equally safe and convenient means.
- (c) The treads of the ladder shall be not less than 19 inches (or 48 centimetres) long, $4\frac{1}{2}$ inches (or 11.4 centimetres) wide and 1 inch (or 2.5 centimetres) in depth. Steps shall be joined in such a manner as will provide a ladder of adequate strength whose treads are maintained in a horizontal position and not less than 12 inches (or 30.5 centimetres) or more than 15 inches (or 38 centimetres) apart.
- (d) A man-rope, properly secured, and a safety line shall be available and ready for use if required.
- (e) Arrangements shall be such that:—
(i) The rigging of the ladder and the embarkation and disembarkation of a pilot is supervised by a responsible officer of the ship.
(ii) Handholds are provided to assist the pilot to pass safely and conveniently from the head of the ladder into the ship or on to the ship's deck.
- (f) If necessary spreaders shall be provided at such intervals as will prevent the ladder from twisting.
- (g) At night a light shining overside shall be available and used and the deck at the position where the pilot boards the ship shall be adequately lit.

- (h) Skepe met bufferrepe of ander skepe wat so gebou is dat dit onmoontlik is om ten volle te voldoen aan die vereiste dat die leer bevestig word op 'n plek waar elke sport stewig teen die kant van die skip sal rus, moet sover as moontlik aan hierdie vereiste voldoen.

HOOFSTUK VI—VERVOER VAN GRAAN

REGULASIE 1

Toepassing

Tensy uitdruklik anders bepaal, is hierdie hoofstuk van toepassing op die vervoer van graan in alle skepe waarop die huidige regulasies van toepassing is.

REGULASIE 2

Woordbepaling

Die word „graan” sluit in koring, mielies, hawer, rog, gars, rys, peulvrugte en sade.

REGULASIE 3

Trimming

Wanneer graan in 'n skip gelaai word, moet alle nodige en redelike voorsorgmaatreëls getref word om te verhoed dat die graan verskuif. Indien 'n ruim of afdeling geheel met los graan gevul word, moet die graan getrim word sodat al die ruimtes tussen die dekbalke en in die vleuels en eindgedeeltes gevul word.

REGULASIE 4

Vollaai van ruime en afdelings

Indien 'n ruim of afdeling geheel en al met los graan gevul word, moet hy behoudens die bepalinge van regulasie 6 van hierdie hoofstuk verdeel word of deur 'n langskeepse beskot of deur graanbeskotte wat op 'n lyn is met die middellyn van die skip of wat hoogstens 5 persent van die grootspantbreedte van die skip van die middellyn afwyk, of deur langsskeepse beskotte of graanbeskotte wat van die middellyn van die skip afwyk, op voorwaarde dat die afstand tussen hulle hoogstens 60 persent van die grootspantbreedte is en dat in laasgenoemde geval laailuuke van gesikte groote in die vleuels op langskeepse afstande van hoogstens 25 voet (of 7.62 meters) aangebring word, waarvan die entluuke hoogstens 12 voet (of 3.66 meters) van dwarsskeepse beskotte verwijder is: In elke geval moet die langsskeepse beskotte of graanbeskotte behoorlik gebou en graandig met behoorlike oppullings tussen die balke aangebring wees. In ruime moet hierdie langsskeepse beskotte of graanbeskotte van die onderkant van die dek minstens een-derde van die diepte van die ruim of 8 voet (of 2.44 meters), watter ook al die grootste is, ondertoe strek. In afdelings in tussendekke en in boboue moet hulle van dek tot dek strek. In alle gevalle moet die langsskeepse beskotte of graanbeskotte strek tot by die bokant van die vulskagte van die ruim of afdeling waarin hulle geleë is.

Met dien verstande dat in die geval van skepe wat gelaai word met ander los graan as lynsaad, waarop daar gedurende die hele reis 'n metasentriese hoogte (na verbetering vir die vryoppervlakte-uitwerking van vloeistowwe in tanks) van minstens 12 duim (of 0.31 meters) in geval van een- of tweedeekskepe en van minstens 14 duim (of 0.36 meters) in die geval van ander skepe gehandhaaf word, dit onnodig is om langsskeepse beskotte of graanbeskotte aan te bring—

(a) onderkant en binne 7 voet (of 2.13 meters) van 'n vulskag maar slegs binne bereik van 'n luikopening, indien daardie vulskag, of al die vulskagte wat gesamentlik 'n afdeling bedien, 'n hoeveelheid

- (h) Ships with rubbing bands or other ships whose construction makes it impossible to comply fully with the provision that the ladder shall be secured at a place where each step will rest firmly against the ship's side shall comply with this provision as closely as possible.

CHAPTER VI—CARRIAGE OF GRAIN

REGULATION 1

Application

Unless expressly provided otherwise, this Chapter applies to the carriage of grain in all ships to which the present Regulations apply.

REGULATION 2

Definition

The term “grain” includes wheat, maize (corn), oats, rye, barley, rice, pulses and seeds.

REGULATION 3

Trimming

Where grain is loaded in a ship, all necessary and reasonable precautions shall be taken to prevent the grain from shifting. If any hold or compartment is entirely filled with bulk grain, the grain shall be trimmed so as to fill all the spaces between the beams and in the wings and ends.

REGULATION 4

Stowage of full holds and compartments

Subject to the provisions of Regulation 6 of this Chapter, if any hold or compartment is entirely filled with bulk grain it shall be divided either by a longitudinal bulkhead or shifting boards in line with, or not more than 5 per cent of the moulded breadth of the ship from, the centre line or by longitudinal bulkheads or shifting boards off the centre line of the ship provided that the distance between them shall not exceed 60 per cent of the moulded breadth of the ship and that in the latter case trimming hatches of suitable size shall be provided in the wings at longitudinal intervals of not more than 25 feet (or 7.62 metres) with end trimming hatches placed not more than 12 feet (or 3.66 metres) from transverse bulkheads. In every case the longitudinal bulkheads or shifting boards shall be properly constructed and fitted grain-tight with proper fillings between the beams. In holds such longitudinal bulkheads or shifting boards shall extend downwards from the underside of the deck to a distance of at least one-third of the depth of the hold or 8 feet (or 2.44 metres) whichever is the greater. In compartments in 'tween decks and superstructures they shall extend from deck to deck. In all cases the longitudinal bulkheads or shifting boards shall extend to the top of the feeders of the hold or compartment in which they are situated.

Provided that in the case of ships loaded with bulk grain other than linseed in which a metacentric height (after correction for the free surface effects of liquids in tanks) is maintained throughout the voyage of not less than 12 inches (or 0.31 metres) in the case of one or two deck ships and not less than 14 inches (or 0.36 metres) in the case of other ships, longitudinal bulkheads or shifting boards need not be fitted—

- (a) below and within 7 feet (or 2.13 metres) of a feeder, but only in way of a hatchway, if that feeder contains, or all the feeders collectively feeding a com-

bevat van minstens 5 persent van die hoeveelheid graan wat vervoer word in die afdeling wat bedien word;

- (b) in vulskagte wat voldoen aan die vereistes van paragraaf (a) van hierdie regulasie en wat sodanige afmetings het dat die vrye graanoppervlakte gedurende die hele reis in die vulskagte sal bly as aanvaar word dat die graan 2 persent van die inhoud van die gelaaide afdeling sal sak en die vrye graanoppervlakte na 'n hoek van 12 grade met die horizontale vlak sal verskuif; in hierdie geval moet die moontlike uitwerking van bogenoemde beweging van die vrye graanoppervlaktes binne die vulskagte by die berekening van bovemelde metasentriese hoogte in aanmerking geneem word;
- (c) reg onder die luikopening waar die los graan onderkant die luikopening in die vorm van 'n piering tot vlak teenaan die dekhoof verby die luikopening getrim en in die middel van die piering tot 'n hoogte van minstens ses voet (of 1.83 meters) bo- kant die bovlak van die los graan (gemeet onderkant die deklyn) met graan in sakke of ander geskikte vrag in sakke afgedek is; die graan in sakke of ander geskikte vrag in sakke moet die luikopening en die piering daaronder vul en moet stewig gestu word teenaan die dekhoof, die langsskeepse beskotte, die luikbalke en die luikhoofde aan die kante en ente van die luik.

REGULASIE 5

Stuwing in gedeeltelik gevulde ruime en afdelings

Behoudens die bepalings van regulasie 6 van hierdie hoofstuk, indien 'n ruim of afdeling gedeeltelik met los graan gevul is—

- (a) moet hy verdeel word deur 'n langsskeepse beskot of graansbeskotte wat op 'n lyn is met die middellyn van die skip of wat hoogstens 5 persent van die grootspanbreedte van die skip van die middellyn awyk, of deur langsskeepse beskotte of graanbeskotte wat van die middellyn van die skip awyk, op voorwaarde dat die afstand tussen hulle hoogstens 60 persent van die grootspanbreedte van die skip is. In elke geval moet die langsskeepse beskotte of graanbeskotte behoorlik gebou wees en vanaf die bodem van die ruim of dek, na gelang van die geval, tot 'n hoogte van minstens 2 voet (of 0.61 meters) bo- kant die oppervlakte van die los graan strek.

Met dien verstaande dat dit, behalwe in die geval van ruime wat gedeeltelik gevul is met los lynsaad, onnodig is om langsskeepse beskotte of graanbeskotte onderkant die luikopening aan te bring in die geval van skepe waarop daar gedurende die hele reis 'n metasentriese hoogte (na verbetering vir die vryoppervlakte-uitwerking van vloeistowwe in tanks) van minstens 12 duim (of 0.31 meters) in die geval van een- of tweedekskepe en van minstens 14 duim (of 0.36 meters) in die geval van ander skepe gehandhaaf word;

- (b) moet die los graan gelykgemaak en afgedek word met opgesakte graan of ander geskikte vrag wat stewig gestu is en in die ruimtes wat deur so 'n langsskeepse beskot of graanbeskotte verdeel is, tot minstens 4 voet (of 1.22 meters) en in ruimtes wat nie so verdeel is nie, tot minstens 5 voet (of 1.52 meters) bo- kant die bovlak van die los graan strek. Die opgesakte graan of ander geskikte vrag moet rus op geskikte platforms wat oor die hele oppervlakte van die los graan gelê is, en sodanige platforms moet bestaan uit drabalke, hoog-

partment contain, not less than 5 per cent of the quantity of grain carried in the compartment which is fed;

- (b) in feeders which meet the requirements of paragraph (a) of this Regulation and which have such dimensions that the free grain surface will remain within the feeders throughout the voyage after allowing for a sinkage of grain amounting to 2 per cent of the volume of the compartment fed and a shift of the free grain surface to an angle of 12 degrees to the horizontal; in this case the possible effects of the above-mentioned movement of the free grain surfaces within the feeders shall be taken into account in calculating the metacentric height given above;
- (c) in way of the hatchway where the bulk grain beneath the hatchway is trimmed in the form of a saucer hard up to the deckhead beyond the hatchway and is topped off with bagged grain or other suitable bagged cargo extending to a height in the centre of the saucer of not less than 6 feet (or 1.83 metres) above the top of the bulk grain (measured below the deck line); the bagged grain or other suitable bagged cargo shall fill the hatchway and the saucer below and shall be stowed tightly against the deckhead, the longitudinal bulkheads, the hatchway beams and the hatchway side and end coamings.

REGULATION 5

Stowage of partly filled holds and compartments

Subject to the provisions of Regulation 6 of this Chapter, if any hold or compartment is partly filled with bulk grain—

- (a) it shall be divided by a longitudinal bulkhead or shifting boards, in line with, or not more than 5 per cent of the moulded breadth of the ship from the centre line or by longitudinal bulkheads or shifting boards off the centre line of the ship provided that the distance between them shall not exceed 60 per cent of the moulded breadth of the ship. In every case the longitudinal bulkheads or shifting boards shall be properly constructed and shall extend from the bottom of the hold or deck, as the case may be, to a height of not less than 2 feet (or 0.61 metres) above the surface of the bulk grain.

Provided that, except in the case of holds partly filled with linseed in bulk, longitudinal bulkheads or shifting boards need not be fitted in way of the hatchway in the case of ships in which a metacentric height (after correction for the free surface effects of liquids in tanks) is maintained throughout the voyage of not less than 12 inches (or 0.31 metres) in the case of one or two deck ships and not less than 14 inches (or 0.36 metres) in the case of other ships.

- (b) the bulk grain shall be levelled and topped off with bagged grain or other suitable cargo tightly stowed and extending to a height of not less than 4 feet (or 1.22 metres) above the top of the bulk grain within spaces divided by such a longitudinal bulkhead or shifting boards, and not less than 5 feet (or 1.52 metres) within spaces not so divided. The bagged grain or other suitable cargo shall be supported on suitable platforms laid over the whole surface of the bulk grain; such platforms shall consist of bearers spaced not more than 4 feet (or 1.22 metres) apart and 1 inch (or 25 millimetres)

stens 4 voet (of 1.22 meters) uit mekaar, waarop planke met 'n dikte van 1 duim (of 25 millimeters) hoogstens 4 duim (of 0.10 meters) uit mekaar geplaas is, of sterk skeidoek met voldoende gordvleueling.

REGULASIE 6

Uitsonderings op die vereistes ten opsigte van langsskeepse beskotte

Daar word nie vereis dat langsskeepse beskotte of graanbeskotte ooreenkomsdig die bepalings van regulasies 4 en 5 van hierdie hoofstuk in die volgende gevalle aangebring word nie—

- (a) in 'n onderruum (die uitdrukking sluit ook die onderste deel van die ruim van 'n eendekskip in) indien die los graan daarin nie meer as een derde van die inhoud van die ruim of, wanneer sodanige onderruum deur 'n astunnel verdeel word, die helfde van die inhoud van daardie ruim beslaan nie;
- (b) in enige ruimte in 'n tussendek of bobou, mits die vleuels weerskante stewig gevul word met opgesakte graan of ander gesikte vrag tot 'n breedte van minstens 20 persent van die breedte van die skip aldaar; en
- (c) in dié gedeeltes van ruimtes waar die maksimum breedte van die dekhoof in genoemde ruimtes nie meer is as die helfte van die grootspanbreedte van die skip nie.

REGULASIE 7

Vulskagte

(a) (i) Elke ruim of afdeling wat geheel en al met los graan gevul word, moet behoudens andersluidende bepalings in paragraaf (c) van regulasie 4 en regulasies 8 en 12 van hierdie hoofstuk deur middel van gesik geplaaste en behoorlik geboude vulskagte gevul word ten einde die vrye vloei van graan vanaf die vulskag na alle dele van daardie ruim of afdeling te verseker.

(ii) Elke vulskag moet behoudens andersluidende bepalings in paragraaf (a) van regulasie 4 van hierdie hoofstuk minstens 2 persent van die hoeveelheid graan bevat wat vervoer word in daardie deel van die ruim of afdeling wat deur die vulskag gevul word.

(b) Wanneer los graan vervoer word in diep tenks wat hoofsaaklik gebou is vir die vervoer van vloeistowwe waarop paragraaf (c) van regulasie 6 van hierdie hoofstuk van toepassing is of wat verdeel word deur een of meer permanente langsskeepse staalfaskortings wat graandig aangebring is, kan vulskagte by die tenks weggeblaas word indien die tenks en die luikopenings van die tenks heeltemal gevul en die luikdeksels gesluit word.

REGULASIE 8

Gewone lading

Vir die toepassing van regulasies 4 en 7 van hierdie hoofstuk kan die onderruime en die tussendekruimtes bo-kant hulle as een afdeling gelaai word op die volgende voorwaarde—

- (a) langsskeepse beskotte of graanbeskotte moet van dek tot dek aangebring word in die tussendek van 'n skip met twee dekke; in alle ander gevalle moet die langsskeepse beskotte of graanbeskotte aangebring word vir die boonste derde van die totale diepte van die gesamentlike ruimtes;
- (b) ten einde 'n genoegsame vloei van graan te verseker, moet alle ruimtes aan die vereistes van regulasie 9 van hierdie hoofstuk voldoen, en moet openings aangebring word in die vleuels van die dek onmiddellik onderkant die bodek aan die

boards laid thereon spaced not more than 4 inches (or 0.10 metres) apart or of strong separation cloths with adequate overlapping.

REGULATION 6

Exceptions to the requirements for longitudinal bulkheads

The fitting of longitudinal bulkheads or shifting boards in accordance with the provisions of Regulations 4 and 5 of this Chapter shall not be required—

- (a) in a lower hold (which term also includes the lower part of the hold of a single-deck ship) if the bulk grain therein does not exceed one-third of the capacity of the hold, or where such lower hold is divided by a shaft tunnel, one-half the capacity of that lower hold;
- (b) in any space in a 'tween deck or superstructure provided that the wings are tightly stowed with bagged grain or other suitable cargo to a breadth on each side of not less than 20 per cent of the breadth of the ship in way thereof; and
- (c) in those parts of spaces where the maximum breadth of the deckhead within the said spaces does not exceed one-half of the moulded breadth of the ship.

REGULATION 7

Feeders

(a) (i) Any hold or compartment which is entirely filled with bulk grain shall be fed by suitably placed and properly constructed feeders, except as otherwise provided in paragraph (c) of Regulation 4 and Regulations 8 and 12 of this Chapter, so as to secure a free flow of grain from the feeder to all parts of that hold or compartment.

(ii) Each feeder shall contain not less than 2 per cent of the quantity of grain carried in that part of the hold or compartment that it feeds except as otherwise provided for in paragraph (a) of Regulation 4 of this Chapter.

(b) When bulk grain is carried in deep tanks primarily constructed for the carriage of liquids to which paragraph (c) of Regulation 6 of this Chapter applies or that are divided by one or more permanent steel longitudinal divisions fitted grain-tight, feeders to the tanks may be omitted if the tanks and tank hatchways are completely filled and the hatch covers secured.

REGULATION 8

Common Loading

For the purpose of Regulations 4 and 7 of this Chapter lower holds and 'tween deck spaces over them may be loaded as one compartment under the following conditions—

- (a) longitudinal bulkheads or shifting boards shall be fitted deck to deck in the 'tween deck of a ship having two decks; in all other cases the longitudinal bulkheads or shifting boards shall be fitted for the upper third of the total depth of the common spaces;
- (b) in order to secure an adequate flow of grain all spaces shall comply with the requirements of Regulation 9 of this Chapter and openings shall be provided in the wings of the deck immediately below the uppermost deck forward and aft of the ends of

voorkant en agterkant van die ente van die luikopenings vir sover dit nodig is om tesame met die luikopenings 'n maksimum langsskeepse toevoerafstand van 8 voet (of 2.44 meters) daar te stel.

REGULASIE 9

Verdeling van lading en stuwing van opgesakte graan in eindruimtes

Wanneer die langsskeepse afstand vanaf enige deel van 'n ruim of afdeling na die naaste vulskag meer as 25 voet (of 7.62 meters) is, moet die los graan in die eindruimtes wat meer as 25 voet (of 7.62 meters) van die naaste vulskag geleë is, gelyk gemaak word op 'n diepte van minstens 6 voet (of 1.83 meters) onder die dek, en moet die eindruimtes gevul word met opgesakte graan wat rus op 'n geskikte platform soos in paragraaf (b) van regulasie 5 van hierdie hoofstuk vereis.

REGULASIE 10

Los graan in tussendekke of boboue

Los graan mag nie anders as op die volgende voorwaardes bodeks, in die tussendek van 'n tweedekskip of in die boonste tussendek van 'n skip met meer as twee dekke vervoer word nie—

- (a) die los graan of ander vrag moet op so 'n wyse gestu word dat die maksimum stabiliteit verseker word; in alle gevalle moet daar gedurende die hele reis 'n metasentriese hoogte (na verbetering vir die vryoppervlakte-uitwerking van vloeistowwe in tanks) van minstens 12 duim (of 0.31 meters) in die geval van een- of tweedekskepe en 14 duim (of 0.36 meters) in die geval van ander skepe gehandhaaf word of andersins, as die gesagvoerder daarvan oortuig is dat die skip gedurende die hele reis genoeg stabiliteit sal hê, mag die totale hoeveelheid los graan of ander vrag wat bodeks, in die tussendekruimtes van 'n tweedekskip of in die boonste tussendekruimtes van 'n skip met meer as twee dekke vervoer word, nie 28 persent van die gewig van die totale lading onder die tussendek te bowe gaan nie. Bovermelde beperking van 28 persent is nie van toepassing wanneer die graan wat bodeks of in die boonste tussendekruimtes vervoer word, hawer, gars of katoensaad is nie;
- (b) die dekoppervlakte vir enige deel van die ruimtes vermeld in hierdie regulasie wat los graan bevat en wat slegs gedeeltelik gevul is, mag nie 1,000 vierkante voet (of 93 vierkante meters) te bowe gaan nie; en
- (c) alle ruimtes waarvan in hierdie regulasie melding gemaak word en wat los graan bevat, moet onderverdeel wees deur dwarsbeskotte op afstande van hoogstens 100 voet (of 30.50 meters); wanneer hierdie afstand oorskry word, moet die addisionele ruimte geheel en al met opgesakte graan of ander geskikte vrag gevul word.

REGULASIE 11

Beperking van die getal gedeeltelik gevulde ruime en afdelings

Behalwe in die geval van skepe waarop gedurende die hele reis 'n metasentriese hoogte (na verbetering vir die vryoppervlakte-uitwerking van vloeistowwe in tanks) van minstens 12 duim (of 0.31 meters) in die geval van een- of tweedekskepe en minstens 14 duim (of 0.36 meters) in die geval van ander skepe gehandhaaf word, mag hoogstens twee ruime of afdelings gedeeltelik gevul word met

the hatchways as necessary to provide in combination with the hatchways a maximum feeding distance of 8 feet (or 2.44 metres) measured in a fore and aft line.

REGULATION 9

Trimming and bagging of end spaces

When the distance, measured in a fore and aft line, from any part of a hold or compartment to the nearest feeder exceeds 25 feet (or 7.62 metres) the bulk grain in the end spaces beyond 25 feet (or 7.62 metres) from the nearest feeder shall be levelled off at a depth of at least 6 feet (or 1.83 metres) below the deck, and the end spaces filled with bagged grain built up on a suitable platform as required in paragraph (b) of Regulation 5 of this Chapter.

REGULATION 10

Bulk grain in 'tween decks and superstructures

Bulk grain shall not be carried above deck, in the 'tween deck of a two deck ship, or in the uppermost 'tween deck of a ship having more than two decks except under the following conditions—

- (a) the bulk grain or other cargo shall be stowed so as to ensure maximum stability: in all cases either a metacentric height (after correction for the free surface effects of liquids in tanks) shall be maintained throughout the voyage of not less than 12 inches (or 0.31 metres) in the case of one or two deck ships and 14 inches (or 0.36 metres) in the case of other ships or, alternatively, the aggregate quantity of bulk grain or other cargo carried above deck, in the 'tween deck spaces of a two deck ship or in the uppermost 'tween deck spaces of a ship having more than two decks shall not exceed 28 per cent by weight of the total cargo below the 'tween deck where the master is satisfied that the ship will have adequate stability throughout the voyage; the limitation of 28 per cent specified above shall not apply when the grain carried above deck or in the uppermost 'tween deck spaces is oats, barley or cotton seed;
- (b) the deck area of any portion of the spaces referred to in this Regulation which contains bulk grain and which is only partly filled shall not exceed 1,000 square feet (or 93 square metres); and
- (c) all spaces referred to in this Regulation in which bulk grain is stowed shall be subdivided by transverse bulkheads at intervals of not more than 100 feet (or 30.50 metres); when this distance is exceeded the excess space shall be entirely filled with bagged grain or other suitable cargo.

REGULATION 11

Limitation on number of partly filled holds and compartments

Except in the case of ships in which a metacentric height (after correction for the free surface effects of liquids in tanks) is maintained throughout the voyage of not less than 12 inches (or 0.31 metres) in the case of one or two deck ships and not less than 14 inches (or 0.36 metres) in the case of other ships, not more than two holds or compartments shall be partly filled with bulk

los graan, maar ander ruime of afdelings kan gedeeltelik met los graan gevul word indien hulle tot by die dekhoof gevul word met opgesakte of ander geskikte vrag. Vir die toepassing van hierdie regulasie—

- (a) moet ooreenliggende tussendekke as afsonderlike afdelings en as afsonderlik van enige laer ruim onder hulle beskou word;
- (b) moet vulskagte en die gedeeltelik gevulde ruimtes waarvan in paragraaf (b) van regulasie 10 van hierdie hoofstuk melding gemaak word, nie as afdelings beskou word nie; en
- (c) moet ruime of afdelings toegerus met een of meer graandigte, langsskeepse verdelings as een ruim of afdeling beskou word.

REGULASIE 12

Stuwing in skepe wat besonder geskik is vir die doel

(a) Neteenstaande enige bepaling van regulasies 4 tot 11 van hierdie hoofstuk, kan los graan onder die volgende omstandighede sonder inagneming van die bepalings van genoemde regulasies vervoer word in skepe wat gebou is met twee of meer vertikale of skuins, graandigte, langsskeepse verdelings in sulke posisies dat die uitwerking van enige dwarsskeepse verskuiwing van die graan beperk sal word—

- (i) soveel ruime en afdelings as moontlik moet vol en vol getrim wees;
- (ii) vir enige gespesifiseerde stuwingsreeëling moet die skip nie in enige stadium van die reis 'n slagsy van meer as 5 grade hê nie wanneer—
 - (1) die graanoppervlakte in ruime of afdelings wat vol getrim is, 2 persent volgens inhoud laer sak as die oorspronklike oppervlakte en verskuif sodat dit 'n hoek van 12 grade met daardie oppervlakte uitmaak onderkant al die grense van hierdie ruime en afdelings wat 'n hock van minder as 30 grade met die horizontale lyn maak; en
 - (2) die vrye graanoppervlaktes in ruime of afdelings wat gedeeltelik gevul is, sak en verskuif soos in subparagraaf (ii) (1) van hierdie paragraaf vermeld of sodat die hoek groter is as wat die Administrasie, of 'n Kontrakterende Regering namens die Administrasie, nodig ag, en wanneer graanoppervlaktes wat hoër gelaai is as wat regulasie 5 van hierdie hoofstuk bepaal, verskuif sodat dit 'n hoek van 8 grade met die oorspronklike gelyk gemaakte oppervlaktes vorm. Vir die toepassing van subparagraaf (ii) van hierdie paragraaf word graanbeskotte, indien aangebring, geag die dwarsskeepse verskuiwing van die graan se oppervlakte te beperk;
- (iii) die gesagvoerder moet voorsien word van 'n graanlaaiplan in verband met die stuwingsreeëlings wat getref moet word, en van 'n stabiliteitsboek, wat albei deur die Administrasie of deur 'n Kontrakterende Regering namens die Administrasie goedgekeur is en waarin die stabiliteitstoestande vermeld word waarna die berekenings aangegee in subparagraaf (ii) van hierdie paragraaf berus.

(b) Die Administrasie, of 'n Kontrakterende Regering namens die Administrasie, moet die voorsorgmaatreëls voorskryf wat teen verskuiwing getref moet word onder alle ander bevrugtingstoestande van skepe wat ooreenkomsdig paragraaf (a) van hierdie regulasie ontwerp is en aan die vereistes van subparagrawe (ii) en (iii) van daardie paragraaf voldoen.

(c) Die Administrasie, of 'n Kontrakterende Regering namens die Administrasie, moet die voorsorgmaatreëls voorskryf wat teen verskuiwing getref moet word in 'n

grain, except that other holds or compartments may be partly filled with bulk grain if they are filled up to the deckhead with bagged or other suitable cargo. For the purpose of this Regulation—

- (a) superimposed 'tween decks shall be regarded as separate compartments and separate from any lower hold below them;
- (b) feeders and the partly filled spaces referred to in paragraph (b) of Regulation 10 of this Chapter shall not be regarded as compartments; and
- (c) holds or compartments provided with one or more grain-tight longitudinal divisions shall be regarded as one hold or compartment.

REGULATION 12

Stowage of specially suitable ships

(a) Notwithstanding anything contained in Regulations 4 to 11 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 settles 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; and
 - (2) in partly filled holds or compartments free grain surfaces settle and shift as in sub-paragraph (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 purposes of sub-paragraph (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 sub-paragraph (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 (a) of this Regulation which meet the requirements of sub-paragraphs (ii) and (iii) of that paragraph.
- (c) The Administration, or a Contracting Government on behalf of the Administration, shall prescribe the precautions to be taken against shifting in a ship of any other

skip wat 'n ander ontwerp het en aan die vereistes van subparagrawe (ii) en (iii) van paragraaf (a) van hierdie regulasie voldoen.

REGULASIE 13

Waterballastanks

Dubbelboomtenks wat gebruik word om te voldoen aan 'n stabiliteitsvereiste in skepe wat los graan laai, moet voldoende waterdigte, langsskeepse onderverdelings hê, behalwe wanneer die wydte van die tenk, gemeet in die middel van sy lengte, nie 60 persent van die skip se grootspantbreedte te bove gaan nie.

REGULASIE 14

Graan in sakke

Opgesakte graan moet vervoer word in gawe *sakke* wat behoorlik gevul en stewig toegemaak moet wees.

REGULASIE 15

Graanlaapiplanne

(a) 'n Graanlaapiplan wat vir 'n skip goedgekeur is deur die Administrasie of deur 'n Kontrakterende Regering namens die Administrasie, moet deur ander Kontrakterende Regerings aanvaar word as bewys dat 'n skip wat ooreenkomsdig sulke planne gelaai is, voldoen aan die vereistes van hierdie hoofstuk of ekwivalente reëlings wat kragtens regulasie 5 van hoofstuk I aangeneem is.

(b) So 'n plan moet goedgekeur word nadat die vereistes van hierdie hoofstuk, die verskillende laaitoestande by aankoms en vertrek en die stabiliteit van die skip in aanmerking geneem is. Dit moet die vermaarde eienskappe aandui van die middels wat aangewend is om te voorkom dat die vrag verskuif.

(c) So 'n plan moet geannoteer word in een of meer tale, waarvan een taal een van die Konvensietale moet wees.

(d) 'n Eksemplaar van so 'n plan moet verskaf word aan die gesagvoerder van die skip, wat dit, indien daarvoor gevra word, moet voorlê ter insae van die betrokke overheid in die hawe waar die graan gelaai word.

(e) Hangende die aanneming van internasionale regulasies betreffende die sterkte van graantoebehore en die verskaffing van voedingsgate in luikhoofde, moet 'n skip wat graan laai en nie 'n graanlaapiplan toon wat deur die Administrasie, of deur 'n Kontrakterende Regering namens die Administrasie, goedgekeur is nie, die graan laai ooreenkomsdig breedvoerige reëls wat ter aanvulling van die bepalings van hierdie hoofstuk uitgereik is deur die Kontrakterende Regering van die land waarin die inskepingshawe geleë is.

REGULASIE 16

Vrystellings vir sekere reise

Indien die Administrasie, of 'n Kontrakterende Regering namens die Administrasie, van oordeel is dat die beskutte aard en die omstandighede van die reis sodanig is dat die toepassing van die een of ander van die vereistes van regulasies 3 tot 15 van hierdie hoofstuk onredelik of onnodig is, kan hy individuele skepe of klasse skepe van daardie besondere vereistes vrystel.

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.

design which meets the requirements of sub-paragraphs (ii) and (iii) of paragraph (a) of this Regulation.

REGULATION 13

Water ballast tanks

Double bottom tanks which are used to meet a stability requirement in ships loading bulk grain shall have adequate watertight longitudinal subdivision except where the width of the tank measured at half length does not exceed 60 per cent of the ship's moulded breadth.

REGULATION 14

Bagged grain

Bagged grain shall be carried in sound bags which shall be well filled and securely closed.

REGULATION 15

Grain loading plans

(a) A grain loading plan approved for a ship whether by the Administration or by a Contracting Government on behalf of the Administration shall be accepted by other Contracting Governments as evidence that the ship when loaded in accordance with such plans meets the requirements of this Chapter or equivalent arrangements which have been accepted under Regulation 5 of Chapter I.

(b) Such plan shall be approved after taking into account the requirements of this Chapter, the various circumstances of loading on departure and arrival, and the stability of the ship. It shall indicate the main characteristics of the fittings used to prevent the shifting of cargo.

(c) Such plan shall be annotated in one or more languages of which one shall be one of the Convention languages.

(d) A copy of such plan shall be supplied to the master of the ship, who if so required shall produce it for the inspection of the appropriate authority of the port in which loading takes place.

(e) Pending the adoption of international regulations concerning the strength of grain fittings and the provision of feeding holes in hatch coamings, a ship loading grain which does not produce a grain loading plan approved by the Administration, or by a Contracting Government on behalf of the Administration, shall load in accordance with detailed rules issued to supplement the provisions of this Chapter by the Contracting Government of the country in which the loading port is situated.

REGULATION 16

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 15 of this Chapter unreasonable or unnecessary, exempt from those particular requirements individual ships or classes of ships.

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) Die bepalings van hierdie hoofstuk is nie van toepassing op skeepsvoorraad 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, bv. tenkskepe.

(c) Die vervoer van geværlike goedere anders as ooreenkomsdig die bepalings van hierdie hoofstuk is verbode.

(d) Elke Kontrakterende Regering moet ter aanvulling van die bepalings van hierdie hoofstuk uitvoerige voorskrifte uitrek of laat uitrek oor die veilige verpakking en stuwing van spesifieke geværlike goedere of kategorieë van geværlike goedere, en sodanige voorskrifte moet die voorsorgsmaatreëls insluit wat in verband met ander vragte nodig is.

REGULASIE 2

Klassifisering

Geværlike goedere word soos volg geklassifiseer:—

Klas 1—Ploffstowwe.

Klas 2—Gasse: saamgepers, vloeibaar gemaak of onder druk opgelos.

Klas 3—Ontvlambare vloeistowwe.

Klas 4 (a)—Ontvlambare vaste stowwe.

Klas 4 (b)—Ontvlambare vaste stowwe, of stowwe wat in staat is tot selfontbranding.

Klas 4 (c)—Ontvlambare vaste stowwe, of stowwe wat in aanraking met water ontvlambare gasse afgee.

Klas 5 (a)—Oksideerstowwe.

Klas 5 (b)—Organiese peroksides.

Klas 6 (a)—Gifstowwe.

Klas 6 (b)—Besmetlike stowwe.

Klas 7—Radio-aktiewe stowwe.

Klas 8—Bytstowwe.

Klas 9—Allerlei geværlike stowwe, d.w.s. enige ander stof wat uit die ondervinding so geværlik gevlyk het of mag gevlyk dat die bepalings van hierdie hoofstuk daarop van toepassing behoort te wees.

REGULASIE 3

Verpakking

(a) Die verpakking van geværlike 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 geværlike wyse aangetas word deur die stof wat vervoer word nie; en (iii) bestand wees teen die gewone risiko's van hantering en vervoer oor 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 geværlike vloeistowwe bevat, moet by die vultemperatuur voldoende uitsitruimte hê om voorstiening 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 geværlike goedere, moet self behandel word as geværlike goedere, tensy hulle skoon- en drooggemaak is of, wanneer die aard van die vorige inhoud dit met veiligheid toelaat, stewig toegemaak is.

(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 (a)—Inflammable solids.

Class 4 (b)—Inflammable solids, or substances, liable to spontaneous combustion.

Class 4 (c)—Inflammable solids, or substances, which in contact with water emit inflammable gases.

Class 5 (a)—Oxidizing substances.

Class 5 (b)—Organic peroxides.

Class 6 (a)—Poisonous (toxic) substances.

Class 6 (b)—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.

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.

REGULASIE 4

Merk en etikette

Elke houer wat gevaaarlike goedere bevat, moet gemark 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 gevaaarlike aard daarvan duidelik te laat blyk. Elke houer moet aldus geëtiketteer word behalwe houers met chemikalieë wat in beperkte hoeveelhede verpak is, en groot besendings wat as 'n eenheid gestu, gehanteer en geïdentifiseer kan word.

REGULASIE 5

Dokumente

(a) In alle dokumente wat betrekking het op die vervoer van gevaaarlike goedere oor 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 ooreenkomsdig 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 gevaaarlike goedere vervoer, moet beskik oor 'n spesiale lys of manifes waarin 'n uiteensetting ooreenkomsdig regulasie 2 van hierdie hoofstuk gegee word van die gevaaarlike goedere wat aan 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 gevaaarlike goedere volgens klas geïdentifiseer en die plek waar hulle op die skip gestu is, aangegee word.

REGULASIE 6

Tydelike uitsonderings op regulasies 4 en 5

Kontrakterende Regerings wat met betrekking tot die vervoer van gevaaarlike goedere oor 'n cenvormige stelsel van reëls vir land- en seevervoer beskik en derhalwe nie onmiddellik die bepalings van regulasies 4 en 5 van hierdie hoofstuk kan toepas nie, kan awfykings van die bepalings van daardie Regulasies magtig vir 'n tydperk van hoogstens twaalf maande vanaf die datum waarop die Konvensie in werking tree, op voorwaarde dat gevaaarlike goedere soos in regulasie 2 van hierdie hoofstuk geklassifiseer, ook aldus in die skeepsdokumente geklassifiseer word en dienooreenkomsdig geëtiketteer word.

REGULASIE 7

Stuwingsvereistes

(a) Gevaarlike goedere moet veilig en paslik ooreenkomsdig die aard van die goedere gestu word. Goedere wat nie akkordeer nie, moet geskei word.

(b) Ploffstowwe (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 ploffstowwe moet afgesonder gehou word van slagdoppies. Elektriese apparaat en kabels in enige afdeling waarin ploffstowwe vervoer word, moet so ontwerp en gebruik word dat die risiko van brand of ontploffing tot 'n minimum beperk word.

(c) Goedere wat gevaaarlike damppe afgee, moet in 'n goed geventileerde ruimte of op dek gestu word.

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 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

Temporary exceptions to Regulations 4 and 5

Contracting Governments which have a uniform system of rules for land and sea transport relating to the carriage of dangerous goods and cannot therefore immediately apply the provisions of Regulations 4 and 5 of this Chapter may authorize departures from the provisions of those Regulations for a period not exceeding twelve months from the date on which the Convention comes into force, provided that dangerous goods as classified in Regulation 2 of this Chapter are also so classified in the shipping documents and are labelled accordingly.

REGULATION 7

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) Op skepe wat ontvlambare vloeistowwe of gasse vervoer, moet waar nodig spesiale voorsorgsmaatreëls teen brand of ontploffing getref word.

(e) Stowwe wat in staat is tot selfverhitting of selfontbranding mag nie vervoer word nie, tensy toereikende voorsorgsmaatreëls getref is om die uitbreek van brand te voorkom.

REGULASIE 8

Plofstowwe in Passasierskepe

(a) Slegs die volgende plofstowwe mag op passasier-skepe vervoer word—

- (i) veiligheidspatrone en veiligheidslonte;
- (ii) klein hoeveelhede plofstowwe met 'n totale netto gewig van hoogstens 20 pond (of 9 kilogram);
- (iii) noodseine vir gebruik in skepe of in vliegtuie mits die totale gewig van sodanige seine nie 2,240 pond (of 1,016 kilogram) te bove 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) Neteenstaande 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 oorlogskape.

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.

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 navigasieomstandighede.

(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 8

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 20 pounds (or 9 kilogrammes) total net weight;
- (iii) distress signals for use in ships or aircraft, if the total weight of such signals does not exceed 2,240 pounds (or 1,016 kilogrammes);
- (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.

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.

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, voedsel of waterbronne voorkom nie. As die Administrasie daarmee tevrede is, moet hy sodanige Veiligheidsaanslag goedkeur en dié moet altyd bygehoud 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 bygehoud 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 undersoeke deur die aanwesigheid van uitstraling beperk word. Daarbenewens moet die undersoeke enige spesiale vereistes van die Veiligheidsaanslag insluit. Sulke undersoeke 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-veiligheidssertifikaat genoem word, moet na inspeksie en ondersoek uitgereik word aan 'n kernpassasierskip wat aan die vereistes van hoofstukke II, III, IV en VIII, en aan enige ander verbandhebbende vereistes van die huidige regulasies voldoen.

(c) 'n Sertifikaat wat 'n Kernvragskip-veiligheidssertifikaat genoem word, moet na inspeksie en ondesroek uitgereik word aan 'n kernvragskip wat by 'n ondersoek uitengesit in regulasie 10 van hoofstuk I aan die vereistes vir vragskepe en ook aan die vereistes van hoofstukke II, III, IV en VIII en aan enige ander verbandhebbende vereistes van die huidige regulasies voldoen.

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

Surveys 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 requirements 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, 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, III, IV and VIII, and any other relevant requirements of the present Regulations.

(d) Kernpassasiërskip-veiligheidssertifikate en Kernvragskip-veiligheidssertifikate 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 Veilighiedsaanslag wat vir die skip goedgekeur is.”

(e) Kernpassasiërskip-veiligheidssertifikate en Kernvragskip-veiligheidssertifikate geld vir 'n tydperk van hoogstens 12 maande.

(f) Kernpassasiërskip-veiligheidssertifikate en Kernvragskip-veiligheidssertifikate moet uitgereik word of deur die Administrasie of deur 'n persoon of organisasie wat deur die Administrasie behoorlik daar toe 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 daar in is, onderworpe aan spesiale beheer wat daarop gekik is om te kontroleer of daar 'n geldige kernskip-veiligheidssertifikaat aan boord is en dat daar op see of in 'n hawe geen onredelike uitstraling of ander gevare vir die bemanning, passasiërs 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.

AANHANGSEL

Vorm van Veiligheidssertifikaat vir Passasiërskepe
PASSASIËRSKIPVEILIGHEIDSSERTIFIKAAT
(Ampelike Seël) (Land)
vir _____ internasionale reis.
'n kort
Uitgereik ingevolge die bepalings van die
INTERNASIONALE KONVENTSIE VIR DIE BEVEILIGING VAN
MENSELEWENS OP SEE, 1960.

Naam van skip	Onder-skeidende nommer of letters	Hawe waar geregistreer	Bruto tonne-maat	Besonderhede, as daar is, van reise wat kragtens Regulasie 27 (c) (vii) van Hoofstuk III goedgekeur is.	Datum waarop die kiel gevæ is. (Lees Opmerking hieronder)

Die
Ek, die ondergetekende

(Naam) Regering sertifiseer
(Naam) sertifiseer

I. Dat bogenoemde skip ooreenkomsdig die bepalings van die Konvensie hierbo genoem, behoorlik ondersoek is.

II. Dat uit die ondersoek gevlyk 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;

(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 authorised 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.

APPENDIX

Form of Safety Certificate for Passenger Ships
PASSENGER SHIP SAFETY CERTIFICATE
(Official Seal) (Country)

an
for _____ international voyage.
a short

Issued under the provisions of the
INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE
AT SEA, 1960.

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 Notes below)

The
I, the undersigned

(Name) Government certifies
(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) die inrigting van en die besonderhede met betrekking tot die waterdige indeling;
 (3) die volgende indelingslaslyne:—

Indelingslaslyne wat toe- gewys is en midskeeps op die skeepsboord gemerk is. (Regulasie 11 van Hoofstuk II)	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 hoogsens 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 aangetoon) en motorreddingsbote wat slegs met 'n soeklig uitgerus is (wat ook by die totale getal reddingsbote hierbo aangetoon, ingesluit is) waarvoor gediplomeerde reddingsbootmanne nodig is; reddingsvlotte waarvoor goedgekeurde tewaterlatings-toestelle vereis word, wat ruimte bied vir persone; en reddingsvlotte waarvoor goedgekeurde tewaterlatings-toestelle nie vereis word nie, wat ruimte bied vir persone; drywende toestelle wat persone kan dra; reddingsboei; reddingsbuise.

IV. Dat die reddingsbote en -vlotte uitgerus is ooreenkomsdig die bepalings van die Regulasies.

V. Dat die skip voorsien is van 'n lynwerptoestel en draagbare radio-apparaat vir reddingsvaartue ooreenkomsdig die bepalings van die Regulasies.

VI. Dat die skip voldoen het aan die voorskrifte van die Regulasies betreffende radiotelegraafinstallasies, t.w.:—

	Voor- skrifte van Regulasie	Werklike toestand
Luisterure van operateur
Getal operateurs
Is daar 'n auto-alarmtoestel?
Is daar 'n hoofinstallasie?
Is daar 'n reserve-installasie?
Is die hoof- en reserwesender elektries geskei of gekombineer?
Is daar 'n rigtungssoeker?
Getal passasiers waarvoor gesertifiseer

VII. Dat die funksionering van die radiotelegraafinstallasies vir motorreddingsbote en/of die draagbare radio-apparaat vir reddingsvaartue, indien aangebring, aan die voorskrifte van die regulasies voldoen het.

VIII. Dat die skip aan die voorskrifte van die Regulasies betreffende brandopsporings- en brandblustoestellte voldoen het en dat dit ooreenkomsdig die bepalings van die Regulasies en die 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 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 gevle is, behalwe in die geval van die jaar 1952 en die jaar waarin die Internasionale Konvensie vir die Beveiliging van Menselwens op See, 1960, in werking getree het, in watter gevalle die werklike datum aangegee moet word.

- (2) the watertight subdivision arrangements and details;
 (3) the following subdivision loadlines:—

Subdivision loadlines assigned and marked on the ship's side at amidships (Regulation 11 of Chapter II)	Freeboard	To apply when the spaces in which passengers are carried included 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 life-boatmen; liferafts, for which approved launching devices are required, capable of accommodating persons; liferafts, for which approved launching devices are not required, capable of accommodating persons; buoyant apparatus capable of supporting persons; lifebuoys; lifejackets.

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.

VI. That the ship complied with the requirements of the Regulations as regards radiotelegraph installations, viz.:—

	Requirements of Regulation	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
Number of passengers for which certified

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 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 Collision Regulations.

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 authorised by the said Government to issue this certificate.

(Signature)

NOTE.—It will be sufficient to indicate the year in which the keel was laid except for 1952 and the year of the coming into force of the International Convention for the Safety of Life at Sea, 1960, in which cases the actual date should be given.

In die geval van 'n skip wat omgeskep is soos in Regulasie 1 (b) (i) van Hoofstuk II van die Konvensie bepaal, moet die datum waarop daar 'n begin met die omskeppingswerk gemaak is, aangegee word.

Vorm van Veiligheidskonstruksiesertifikaat vir Vragskepe
VRAGSKIPVEILIGHEIDSKONSTRUKSIESERTIFIKAAT
(Ampelike Seël) *(Land)*
 Uitgerek ingevolge die bepalings van die
INTERNASIONALE KONVENTSIE VIR DIE BEVEILIGING VAN
MENSELEWENS OP SEE, 1960.

Naam van Skip	Onder-skeidende Nommer of Letters	Hawe waar geregistreer	Bruto Tonnemaat	Datum waarop die Kiel gelê is (Lees Opmerking hieronder)

Die Ek, die ondergetekende *(Naam) Regering sertifiseer
(Naam) sertifiseer*

Dat die bogenoemde skip behoorlik ondersoek is ooreenkomsdig 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 bestaande Regulasie omskryf, in alle opsigte bevredigend was en dat die skip voldoen het aan die toepaslike vereistes van Hoofstuk II (uitgesonderd dié wat betrekking het op brandblustoestelle en brandbeheerplanne).

Hierdie sertifikaat is uitgerek op gesag van die Regering. Dit bly van krag tot

Uitgerek 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, behalwe in die geval van die jaar 1952 en die jaar waarin die Internasionale Konvensie vir die Beveiligung van Menselewens op See, 1960, in werking getree het, in watter gevalle die werklike datum aangegee moet word.

Vorm van Veiligheidssuitrustingsertifikaat vir Vragskepe
VRAGSKIPVEILIGHEIDSUITRUSTINGSERTIFIKAAT

(Ampelike Seël) *(Land)*
 Uitgerek ingevolge die bepalings van die
INTERNASIONALE KONVENTSIE VIR DIE BEVEILIGING VAN
MENSELEWENS OP SEE, 1960.

Naam van Skip	Onder-skeidende Nommer of Letters	Hawe waar geregistreer	Bruto Tonnemaat	Datum waarop die kiel gelê is (Lees Opmerking hieronder)

Die Ek, die ondergetekende *(Naam) Regering sertifiseer
(Naam) sertifiseer*

I. Dat bogenoemde skip ooreenkomsdig die bepalings van die Konvensie hierbo genoem behoorlik geïnspekteer is.

II. Dat uit die inspeksie geblyk het dat die reddingstoestelle voorseeing 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;

In the case of a ship which is converted as provided in Regulation 1 (b) (i) of Chapter II 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, 1960

Name of Ship	Distinctive Number or Letters	Port of Registry	Gross Tonnage	Date on which keel was laid (see Note below)

The *I, the undersigned* *(Name) Government certifies
(Name) certify*

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 (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 authorised by the said Government to issue this certificate.

(Signature)

NOTE.—It will be sufficient to indicate the year in which the keel was laid except for 1952 and the year of the coming into force of the International Convention for the Safety of Life at Sea, 1960, 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, 1960

Name of Ship	Distinctive Number or Letters	Port of Registry	Gross Tonnage	Date on which keel was laid (see Note below)

The *I, the undersigned* *(Name) Government certifies
(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;

motorreddingsbote (inbegrepe by die totale getal reddingsbote hierbo aangetoon) met inbegrip van.....
 motorreddingsbote uitgerus met radiotelegraafinstallasie en soeklig, en.....motorreddingsbote wat slegs met 'n soeklig uitgerus is;
 reddingsvlotte, waarvoor goedgekeurde tewaterlatings-toestelle vereis word, wat ruimte bied vir..... persone; en
 reddingsvlotte, waarvoor goedgekeurde tewaterlatings-toestelle nie vereis word nie, wat ruimte bied vir..... persone;
 reddingsboei;
 reddingsbuise.

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 reddingsvaartue 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 en dat dit ooreenkomstig die bepalings van die Regulasies en die Internasionale Botsingsregulasies voorsien is van navigasieligte en -figure,loodsleer asook van middels om geluid en noodseine te maak.

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, behalwe in die geval van die jaar 1952 en die jaar waarin die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960, in werking getree het, in watter gevalle die werklike datum aangegee moet word.

Vorm van Veiligheidsradiotelefonesertifikaat vir Vragskepe

VRAGSKIPVEILIGHEIDSRAZOTELEFONIESERTIFIKAAT

(Ampelike Seël) (Land)

Uitgereik ingevolge die bepalings van die

INTERNASIONALE KONVENTSIE VIR DIE BEVEILIGING VAN
MENSELEWENS OP SEE, 1960.

Naam van Skip	Onder-skeidende Nommer of Letters	Hawe waar geregistreer	Bruto Tonnemaat	Datum waarop die kiel gelê is (Lees Opmerking hieronder)

Die Ek, die ondergetekende (Naam) Regering sertificeer (Naam) sertificeer

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:—

Luisterure	Getal operateurs	Voorskrifte van Regulasies	Werklike toestand
..		

II. Dat die funksionering van die draagbare radio-apparaat vir reddingsvaartue, indien aangebring, aan die voorskrifte van genoemde Regulasies voldoen.

motor lifeboats (included in the total lifeboats shown above), including..... motor lifeboats fitted with radio-telegraph 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;
 lifejackets.

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 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 Collision Regulations.

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 authorised by the said Government to issue this certificate.

(Signature)

NOTE.—It will be sufficient to indicate the year in which the keel was laid except for 1952 and the year of the coming into force of the International Convention for the Safety of Life at Sea, 1960, 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, 1960

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.

Vorm van Vrystellingsertifikaat
VRYSTELLINGSERTIFIKAAT
(Ampelike Seël) **(Land)**
 Uitgereik ingevolge die bepalings van die
INTERNASIONALE KONVENTSIE VIR DIE BEVEILIGING VAN
MENSELEWENS OP SEE, 1960.

Naam van Skip	Onder-skeidende nommer of letters	Hawe waar geregistreer	Bruto tonnemaat

Die
 Ek, die ondergetekende **(Naam)** Regering sertifiseer
(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.....

* Vul hier in die voorwaardes, as daar is,
 waarop die vrystellingsertifikaat verleen word }

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 verwysings na Hoofstukke en Regulasies, met vermelding van besondere paragrawe.

Vorm van Veiligheidsertifikaat vir Kernpassasiërskepe
KERNPASSASIERSKIP-VEILIGHEIDERTIFIKAAT

(Ampelike Seël) **(Land)**
 Uitgereik ingevolge die bepalings van die
INTERNASIONALE KONVENTSIE VIR DIE BEVEILIGING VAN
MENSELEWENS OP SEE, 1960.

Naam van skip	Onder-skeidende 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 gevleg is. <i>(Lees Opmerking hieronder)</i>

Die
 Ek, die ondergetekende **(Naam)** Regering sertifiseer
(Naam) sertifiseer

I. Dat bogenoemde skip ooreenkomsdig 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 gevlyk 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 waterdige indeling;
- (3) die volgende indelingslaslyne:—

Form of Exemption Certificate
EXEMPTION CERTIFICATE

(Official Seal) **(Country)**
 Issued under the provisions of the
INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1960

Name of Ship	Distinctive Number or Letters	Port of Registry	Gross Tonnage

The
 I, the undersigned **(Name)** Government certifies
(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.....

* Insert here the * conditions, if any, on which the exemption certificate is granted.

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.

If signed, the following paragraph is to be added:— **(Seal)**

The undersigned declares that he is duly authorised by the said Government to issue this certificate. **(Signature)**

† 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, 1960

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 Notes below)

The
 I, the undersigned **(Name)** Government certifies
(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 loadlines:—

Indelingslaslyne wat toegewys en midskeeps op die skeepsboord gemerk is. (Regulasie 11 van Hoofstuk II)	Vryboord	Van toepassing wanneer die ruimtes waarin passasiers vervoer word die volgende alternatiewe ruimtes omvat.	Subdivision loadlines assigned and marked on the ship's side at amidships (Regulation 11 of Chapter II)	Freeboard	To apply when the spaces in which passengers are carried include the following alternative spaces
C.1 .. .. ..	..	..	C.1	..	..
C.2 .. .. ..	..	..	C.2	..	..
C.3 .. .. ..	..	..	C.3	..	..

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 aangetoon) en motorreddingsbote wat slegs met 'n soeklig uitgerus is (wat ook by die totale getal reddingsbote hierbo aangetoon, ingesluit is), waarvoor gediplomeerde reddingsbootmannetjie nodig is; reddingsvlotte waarvoor goedgekeurde tewaterlatings-toestelle vereis word en wat ruimte bied vir persone; reddingsvlotte waarvoor goedgekeurde tewaterlatings-toestelle nie vereis word nie en wat ruimte bied vir persone; drywende toestelle wat persone kan dra; reddingsboei; reddingsbuise.

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.:—

	Voor-skrifte van Regulasie	Werklike toestand
Luisterure van operateur
Getal operateurs
Is daar 'n auto-alarmtoestel?
Is daar 'n hoofinstallasie?
Is daar 'n reserwe-installasie?
Is die hoof- en reserwesenders elektries geskei of gekombineer?
Is daar 'n rigtingsoeker?
Getal passasiers waarvoor gesertifiseer

VIII. Dat die funksionering van die radiotelegraafinstallasies vir motorreddingsbote en/of die draagbare radio-apparaat vir reddingsvaartuie, indien aangebring, aan die voorskrifte van die Regulasies voldoen het.

IX. Dat die skip aan die voorskrifte van die Regulasies betreffende brandopsporings- en brandblustoestelle voldoen het en dat dit ooreenkomstig die bepalings van die Regulasies en die Internasionale Botsingsregulasies voorsien is van navigasielike 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, behalwe in die geval van die jaar waarin die Internasionale Konvensie vir die Beveiliging van Menseliewens op See, 1960, in werking getree het, in watter geval die werklike datum aangegee moet word.

In die geval van 'n skip wat omgeskep is soos in Regulasie 1 (b) (i) van Hoofstuk II bepaal, moet die datum waarop daar 'n begin met die omskeppingswerk gemaak is, aangegee word.

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;

bouyant apparatus capable of supporting persons;

lifebuoys;

lifejackets.

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 Regulation	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
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 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 Collision Regulations.

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 authorised by the said Government to issue this certificate.

(Signature)

NOTE.—It will be sufficient to indicate the year in which the keel was laid except for the year of coming into force of the International Convention for the Safety of Life at Sea, 1960, in which case 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, the date on which the work of conversion was begun should be given.

Vorm van Veiligheidsertifikaat vir Kernvragsskepe
KERNVRAKSHIP-VEILIGHEIDSERTIFIKAAT

(Ampelike Seel) (Land.)

Uitgereik ingevolge die bepalings van die
**INTERNASIONALE KONVENTSIE VIR DIE BEVEILIGING VAN
 MENSELEWENS OP SEE, 1960.**

Naam van Skip	Onder-skeidende Nommer of Letters	Hawe waar geregistreer	Bruto Tonnemaat	Datum waarop die kiel gelê is (Lees Opmerking hieronder)

Die Ek, die ondergetekende (Naam) Regering sertifiseer
 (Naam) sertifiseer

I. Dat bogenoemde skip ooreenkomsdig 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 gevlyk 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 voldoen het.

IV. Dat die reddingstoestelle voorsiening maak vir altesaam hoogsens... 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 inbegrif van motorreddingsbote toegerus met radiotelegraafinstallasie en soeklig, en motorreddingsbote wat slegs met 'n soeklig toegerus is;
- reddingsvlotte, waarvoor goedgekeurde tewaterlatings-toestelle vereis word en wat ruimte bied vir .. persone; en
- reddingsvlotte, waarvoor goedgekeurde tewaterlatings-toestelle nie vereis word nie en wat ruimte bied vir .. persone;
- reddingsboei;
- reddingsbuise.

V. Dat die reddingsbote en -vlotte uitgerus is ooreenkomsdig 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 ooreenkomsdig die bepalings van die Regulasies.

VII. Dat die skip voldoen het aan die voorskrifte van die Regulasies betreffende radiotelegraafinstallasies, t.w.:—

	Voor-skrifte van Regulasies	Werklike toestand
Luisterure van operateur
Getal operateurs
Is daar 'n outo-alarmtoestel?
Is daar 'n hoofinstallasie?
Is daar 'n reserwē-installasie?
Is die hoof- en reserwesenders elektries geskei of gekombineer?
Is daar 'n rigtingsoeker?

VIII. Dat die funksionering van die radiotelegraafinstallasies vir motorreddingsbote en/of die draagbare radio-apparaat vir reddingsvaartuie, indien aangebring, aan die voorskrifte van die Regulasies voldoen het.

IX. Dat uit die inspeksie gevlyk het dat die skip voldoen het aan die voorskrifte van genoemde Konvensie betreffende brandblus-toestelle en ooreenkomsdig die bepalings van die Regulasies en die 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.

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, 1960

Name of Ship	Distinctive Number or Letters	Port of Registry	Gross Tonnage	Date on which keel was laid (see Note below)

The I, the undersigned (Name) Government certifies (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.

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;
- liferafts for which approved launching devices are not required, capable of accommodating .. persons;
- lifebuoys;
- lifejackets.

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

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 inspection showed that the ship complied with the requirements of the said Convention as regards fire-extinguishing appliances 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 Collision Regulations.

X. That in all other respects the ship complied with the requirements of the Regulations so far as these requirements apply thereto.

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, behalwe in die geval van die jaar waarin
die Internasionale Konvensie vir die Beveiliging van Menselewens
op See, 1960, in werking getree het, in watter geval die werklike
datum aangegee moet word.

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 authorised by the said
Government to issue this certificate.

(Signature)

NOTE.—It will be sufficient to indicate the year in which the keel
was laid except for the year of coming into force of the International
Convention for the Safety of Life at Sea, 1960, in which case the
actual date should be given.

INHOUD.

PROKLAMASIE.

No.	BLADSY
R.12	Handelskeepvaartwet, 1951 (Wet No. 57 van 1951), soos gewysig: Vervanging van die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1948, deur die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960 1

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