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PART 1 OF 2

THE PRESIDENCY

No. 5790 **29 January 2025**

It is hereby notified that the President has assented to the following Act, which is hereby published for general information:—

Act No. 36 of 2024: Marine Pollution (Prevention of Pollution from ships) Amendment Act, 2024

DIE PRESIDENSIE

No. 5790 **29 Januarie 2025**

Hierby word bekend gemaak dat die President sy goedkeuring geheg het aan die onderstaande Wet wat hierby ter algemene inligting gepubliseer word:—

No. 36 van 2024: Wysigingswet op Mariene Besoedeling (Voorkoming van Besoedeling Deur skepe), 2024

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GENERAL EXPLANATORY NOTE:

- [] Words in bold type in square brackets indicate omissions from existing enactments.
- Words underlined with a solid line indicate insertions in existing enactments.

(English text signed by the President)
(Assented to 20 December 2024)

ACT

To amend the Marine Pollution (Prevention of Pollution from Ships) Act, 1986, so as to give effect to Annex IV of the International Convention for the Prevention of Pollution from Ships, to incorporate the 1997 Protocol in order to give effect to Annex VI of the Convention; and to provide for matters connected therewith.

BE IT ENACTED by the Parliament of the Republic of South Africa, as follows:—

Amendment of section 1 of Act 2 of 1986, as amended by section 1 of Act 66 of 1996

1. Section 1 of the Marine Pollution (Prevention of Pollution from Ships) Act, 1986 (hereinafter referred to as the “principal Act”), is hereby amended by the substitution for the definition of “Convention” of the following definition: 5
- “ ‘**Convention**’ means the International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocol of 1978 adopted by the Inter-Governmental Maritime Consultative Organization (“IMCO”) in London on 17 February 1978, including any annexes, regulations and protocols which are issued in terms thereof and set out in the Schedule;”. 10

Insertion of sections 2A and 2B in Act 2 of 1986

2. The following sections are hereby inserted in the principal Act after section 2:

“**Incorporation of Convention into Law**

- 2A. (1) Subject to the provisions of this Act, the Convention has the force of law in the Republic. 15
- (2) The Minister shall, as soon as practicable after the entry into force for the Republic, of any amendment to the Convention, amend the Schedule by notice in the Gazette, to reflect such amendment.

ALGEMENE VERDUIDELIKENDE NOTA:

- [] Woorde in vetdruk in vierkantige hakies dui weglatings uit bestaande verordeninge aan.
- _____ Woorde met 'n volstreep daaronder dui invoegings in bestaande verordeninge aan.

(Engelse teks deur die President geteken)
(Goedgekeur op 20 Desember 2024)

WET

Tot wysiging van die Wet op Mariene Besoedeling (Voorkoming van Besoedeling deur Skepe), 1986, ten einde gevolg te gee aan Aanhangel IV van die Internasionale Konvensie ter Voorkoming van Besoedeling deur Skepe, ten einde die 1997-protokol te inkorporeer ten einde gevolg te gee aan Aanhangel VI van die Konvensie; en om voorsiening te maak vir aangeleenthede wat daarmee in verband staan.

DAAR WORD BEPAAL deur die Parlement van die Republiek van Suid-Afrika, soos volg:—

Wysiging van artikel 1 van Wet 2 van 1986, soos gewysig deur artikel 1 van Wet 66 van 1996

1. Artikel 1 van die Wet op Mariene Besoedeling (Voorkoming van Besoedeling deur Skepe), 1986, (hierna die “Hoofwet” genoem), word hierby gewysig deur die omskrywing van “Konvensie” deur die volgende omskrywing te vervang:

“ ‘**Konvensie**’ die Internasionale Konvensie ter Voorkoming van Besoedeling deur Skepe, 1973, soos gewysig deur die Protokol van 1978 wat op 17 Februarie 1978 te Londen deur die Interstaatlike Maritieme Raadplegende Organisasie (“IMCO”) aangeneem is, met inbegrip van enige aanhangsels, regulasies en protokolle wat ingevolge daarvan uitgereik is en waarvan ’n vertaling in die Bylae verskyn;”.

Invoeging van artikels 2A en 2B in Wet 2 van 1986

2. Die volgende artikels word hierby na artikel 2 in die Hoofwet ingevoeg:

“Inlywing van Konvensie in Wet

2A. (1) Behoudens die bepalings van hierdie Wet, het die Konvensie regskrag in die Republiek.

(2) Die Minister moet, so gou as moontlik na inwerkingtreding vir die Republiek, van enige wysiging van die Konvensie, die Bylae by kennisgewing in die *Staatskoerant* wysig ten einde sodanige wysiging weer te gee.

Technical Standards for Maritime Transport

2B. (1) The Authority may issue technical standards for marine pollution from ships on such matters as may be prescribed by regulation.
(2) A technical standard shall have the force of law.”.

Amendment of section 3 of Act 2 of 1986, as amended by section 3 of Act 66 of 19965

3. Section 3 of the principal Act, is hereby amended—
- (a) by the deletion of paragraph (e) of subsection (1) and the word “and” immediately preceding the said paragraph; and
 - (b) by the addition in subsection (1) of the following paragraphs:

“(e) relating to the prevention of air pollution from ships;10

(f) relating to the prevention of pollution by sewage from ships;

(g) relating to the removal of endocrine disrupting substances from sewage streams before it is treated and released;

(h) relating to the permitted types of emission abatement equipment;

(i) relating to the requirements for the disposal of waste generated by the mitigation equipment;15

(j) relating to accredited laboratories eligible to test the fuel samples and the costs;

(k) relating to the designation of Emission Control Areas (ECA);

(l) relating to the enforcement of protective measures in particularly sensitive sea areas and other special areas; and20

(m) on generally any other ancillary or incidental administrative or procedural matters that are necessary for the proper implementation or administration of this Act.”.

Amendment of section 3A of Act 2 of 1986, as amended by section 2 of Act 5 of 199825

4. Section 3A of the principal Act is hereby amended by the substitution for subsection (4) of the following subsection:
- “(4) Any person convicted of an offence under subsection (1) shall be liable to a fine not exceeding [R500 000] R10 million, or to imprisonment for a period not exceeding [five years] 10 years or to such fine as well as such imprisonment.”.30

Insertion of section 3B in Act 2 of 1986

5. The following section is hereby inserted in the principal Act after section 3A:

“Powers of Minister

- 3B. The Minister may—
- (a) appoint an advisory committee to advise him or her in regard to any particular matter dealt with by this Act;35
 - (b) conclude a co-operative agreement with other states;
 - (c) delegate or assign a duty to any official of the Department in regard to any matter dealt with by this Act, with the exception of the power to make regulations and the powers contemplated in paragraphs (a) and (b) of this section.”.40

Amendment of Schedule to Act 2 of 1986

6. The Schedule to the principal Act is hereby amended by the addition of Annex IV and Annex VI, respectively, as provided in the Schedule to this Act.

Tegniese standaard vir Maritieme Vervoer

2B. (1) Die Owerheid kan tegniese standaard vir mariene besoedeling van skepe uitreik op sodanige aangeleenthede soos by regulasie voorgeskryf kan word.
(2) 'n Tegniese standaard het regsrag.

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Wysiging van artikel 3 van Wet 2 van 1986, soos gewysig deur artikel 3 van Wet 66 van 1996

3. Artikel 3 van die Hoofwet word hierby gewysig—
- (a) deur paragraaf (e) in subartikel (1) en die woord “en” wat die vermeldde paragraaf voorafgaan, te skrap; en 10
 - (b) deur die volgende paragrawe by subartikel (1) te voeg:
 - “(e) met betrekking tot die voorkoming van lugbesoedeling vanaf skepe;
 - (f) met betrekking tot die voorkoming van besoedeling deur riool vanaf skepe; 15
 - (g) met betrekking tot die verwydering uit riool van stowwe wat die endokriene stelsel ontwig, voordat dit behandel en afgevoer word;
 - (h) met betrekking tot die toegelate tipes emissieverminderings-toerusting;
 - (i) met betrekking tot die vereistes vir wegdoening van afval wat deur die versagtingstoerusting gegenereer is; 20
 - (j) met betrekking tot geakkrediteerde laboratoriums wat kwalifiseer om die brandstofmonsters te toets en die kostes;
 - (k) met betrekking tot die aanwysing van emissiebeheergebiede (EBG);
 - (l) met betrekking tot die afdwinging van beskermingsmaatreëls in besonder sensitiewe seegebiede en ander spesiale gebiede; en 25
 - (m) oor in die algemeen enige ander aanvullende of insidentele administratiewe of prosedurele aangeleenthede wat nodig is vir die behoorlike inwerkingstelling of administrasie van hierdie Wet.”.

Wysiging van artikel 3A van Wet 2 van 1986, soos gewysig deur artikel 2 van Wet 5 van 1998 30

4. Artikel 3A van die Hoofwet word hierby gewysig deur subartikel (4) deur die volgende subartikel te vervang:
- “(4) Iemand wat ingevolge subartikel (1) aan ’n misdryf skuldig bevind word, is strafbaar met ’n boete van hoogstens [R500 000] R10 miljoen, of met 35 gevangenisstraf vir ’n tydperk van hoogstens [vyf jaar] 10 jaar, of met so ’n boete sowel as sodanige gevangenisstraf.”.

Invoeging van artikel 3B in Wet 3 van 1986

5. Die volgende artikel word hierby na artikel 3A in die Hoofwet ingevoeg:

“Bevoegdhede van Minister 40

3B. Die Minister kan—

- (a) ’n advieskomitee aanstel om hom of haar van raad te bedien oor enige bepaalde aangeleentheid waaroor hierdie Wet handel;
- (b) ’n samewerkingsooreenkoms met ander state sluit;
- (c) ’n plig aan enige beampte van die Departement deleger of toewys met betrekking tot enige aangeleentheid wat deur hierdie Wet hanteer word, met die uitsondering van die bevoegdheid om regulasies te maak en die bevoegdhede in paragrawe (a) en (b) van hierdie artikel beoog.”. 45

Wysiging van Bylae by Wet 2 van 1986 50

6. Die Bylae by die Hoofwet word hierby gewysig deur Aanhangsel IV en Aanhangsel VI, onderskeidelik, by te voeg, soos in die Bylae by hierdie Wet uiteengesit.

Short title and commencement

7. This Act shall be called the Marine Pollution (Prevention of Pollution from Ships) Amendment Act, 2024, and shall come into effect on the date fixed by the President by proclamation in the *Gazette*.

Kort titel en inwerkingtreding

7. Hierdie Wet heet die Wysigingswet op Mariene Besoedeling (Voorkoming van Besoedeling deur Skepe), 2024, en tree in werking op die datum deur die President by proklamasie in die *Staatskoerant* vasgestel.

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Schedule**Annex IV****Regulations for the prevention of pollution by sewage from ships (regs 1–18)****CHAPTER 1****GENERAL****Regulation 1***Definitions***For the purposes of this Annex:**

1. *New ship* means a ship—
 - (a) for which the building contract is placed, or in the absence of a building contract, the keel of which is laid, or which is at a similar stage of construction, on or after the date of entry into force of this Annex; or
 - (b) the delivery of which is three years or more after the date of entry into force of this Annex.
2. *Existing ship* means a ship which is not a new ship.
3. *Sewage* means—
 - (a) drainage and other wastes from any form of toilets and urinals;
 - (b) drainage from medical premises (dispensary, sick bay, etc.) via wash basins, wash tubs and scuppers located in such premises;
 - (c) drainage from spaces containing living animals; or
 - (d) other waste waters when mixed with the drainages defined above.
4. *Holding tank* means a tank used for the collection and storage of sewage.
5. *Nearest land*. The term “from the nearest land” means from the baseline from which the territorial sea of the territory in question is established in accordance with international law except that, for the purposes of the present Convention, “from the nearest land” off the north-eastern coast of Australia shall mean from a line drawn from a point on the coast of Australia in:
 - latitude 11°00’S, longitude 142°08’E to a point in latitude 10°35’S, longitude 141°55’E, thence to a point latitude 10°00’S, longitude 142°00’E, thence to a point latitude 09°10’S, longitude 143°52’E, thence to a point latitude 09°00’S, longitude 144°30’E, thence to a point latitude 10°41’S, longitude 145°00’E, thence to a point latitude 13°00’S, longitude 145°00’E, thence to a point latitude 15°00’S, longitude 146°00’E, thence to a point latitude 17°30’S, longitude 147°00’E, thence to a point latitude 21°00’S, longitude 152°55’E, thence to a point latitude 24°30’S, longitude 154°00’E, thence to a point on the coast of Australia in latitude 24°42’S, longitude 153°15’E.
6. *Special area* means a sea area where for recognized technical reasons in relation to its oceanographical and ecological condition and to the particular character of its traffic the adoption of special mandatory methods for the prevention of sea pollution by sewage is required. The special areas are—
 - (a) the Baltic Sea area as defined in regulation 1.11.2 of Annex I; and
 - (b) any other sea area designated by the Organization in accordance with criteria and procedures for designation of special areas with respect to prevention of pollution by sewage from ships.
7. *International voyage* means a voyage from a country to which the present Convention applies to a port outside such country, or conversely.
8. *Person* means member of the crew and passengers.

Bylae**Aanhangsel IV****Regulasies ter voorkoming van besoedeling deur riool vanaf skepe (regs 1–18)****HOOFSTUK 1****ALGEMEEN****Regulasie 1***Woordomskrywings***By die toepassing van hierdie Aanhangsel, beteken:**

1. *Nuwe skip* 'n skip—
 - (a) waarvoor die boukontrak geplaas is, of in die afwesigheid van 'n boukontrak, waarvan die kiel gelê is, of wat in 'n soortgelyke stadium van konstruksie is, op of na die datum van inwerkingtreding van hierdie Aanhangsel; of
 - (b) waarvan die lewering drie of meer jaar na die datum van inwerkingtreding van hierdie Aanhangsel is.
2. *Bestaande skip* 'n skip wat nie 'n nuwe skip is nie.
3. *Riool*—
 - (a) dreinerings en ander uitskot van enige vorm van toilette en urinale;
 - (b) dreinerings vanaf mediese persele (apteek, siekeboeg, ens.) via wasbakke, wasbalies en spoelbakke wat in sodanige perseel geleë is;
 - (c) dreinerings vanaf spasies wat lewende diere hou; of
 - (d) ander afvalwater wanneer dit gemeng is met die dreinerings hierbo omskryf.
4. *Riooltenk* 'n tenk wat gebruik word vir die versameling en berging van riool.
5. *Naaste land*. Die term “van die naaste land” beteken vanaf die basislyn waarvandaan die territoriale see van die betrokke gebied volgens volkereg gevestig is, behalwe dat, vir die doeleindes van hierdie Konvensie, “van die naaste land” aan die noordoostelike kus van Australië beteken vanaf 'n lyn wat getrek word vanaf 'n punt aan die kus van Australië in:
 - breedtegraad 11°00'S, lengtegraad 142°08'O tot 'n punt in breedtegraad 10°35'S, lengtegraad 141°55'O, vandaar na 'n breedtegraad 10°00'S, lengtegraad 142°00'O, vandaar na 'n punt breedtegraad 09°10'S, lengtegraad 143°52'O, vandaar na 'n punt breedtegraad 09°00'S, lengtegraad 144°30'O, vandaar na 'n breedtegraad 10°41'S, lengtegraad 145°00'O, vandaar na 'n punt breedtegraad 13°00'S, lengtegraad 145°00'O, vandaar na 'n punt breedtegraad 15°00'S, lengtegraad 146°00'O, vandaar na 'n punt breedtegraad 17°30'S, lengtegraad 147°00'O, vandaar tot by 'n breedtegraad 21°00'S, lengtegraad 152°55'O, vandaar tot by 'n breedtegraad 24°30'S, lengtegraad 154°00'O, vandaar tot by 'n punt aan die kus van Australië in breedtegraad 24°42'S, lengtegraad 153°15'O.
6. *Spesiale gebied* 'n seegebied waar om erkende tegniese redes in verband met sy oseanografiese en ekologiese toestand en tot die besondere karakter van sy verkeer die aanvaarding van spesiale verpligte metodes vir die voorkoming van seebesoeiding deur riool vereis. Die spesiale gebiede is—
 - (a) die Oosseegebied soos in regulasie 1.11.2 van Aanhangsel I omskryf; en
 - (b) enige ander seegebied deur die Organisasie aangewys ooreenkomstig die maatstawwe en prosedures vir aanwysing van spesiale gebiede ten opsigte van die voorkoming van besoedeling deur riool vanaf skepe.
7. *Internasionale vaart* 'n vaart vanaf 'n land waarop die huidige Konvensie van toepassing is na 'n hawe buite daardie land, of andersom.
8. *Persoon* 'n lid van die bemanning en passasiers.

9. A *passenger* means every person other than—
 - (a) 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
 - (b) a child under one year of age.
10. A *passenger ship* means a ship which carries more than twelve passengers. For the application of regulation 11.3, a *new passenger ship* is a passenger ship:
 - (a) for which the building contract is placed, or in the absence of a building contract, the keel of which is laid, or which is in a similar stage of construction, on or after 1 June 2019; or
 - (b) the delivery of which is on or after 1 June 2021.
11. An *existing passenger ship* is a passenger ship which is not a new passenger ship.
12. *Anniversary date* means the day and the month of each year which will correspond to the date of expiry of the International Sewage Pollution Prevention Certificate.
13. *Audit* means a systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled.
14. *Audit Scheme* means the IMO Member State Audit Scheme established by the Organization and taking into account the guidelines developed by the Organization.
15. *Code for Implementation* means the IMO Instruments Implementation Code (III Code) adopted by the Organization by resolution A.1070(28).
16. *Audit Standard* means the Code for Implementation.

Regulation 2

Application

1. The provisions of this Annex shall apply to the following ships engaged in international voyages:
 - (a) new ships of 400 gross tonnage and above; and
 - (b) new ships of less than 400 gross tonnage which are certified to carry more than 15 persons; and
 - (c) existing ships of 400 gross tonnage and above, five years after the date of entry into force of this Annex; and
 - (d) existing ships of less than 400 gross tonnage which are certified to carry more than 15 persons, five years after the date of entry into force of this Annex.
2. The Administration shall ensure that existing ships, according to subparagraphs 1.3 and 1.4 of this regulation, the keels of which are laid or which are of a similar stage of construction before 2 October 1983 shall be equipped, as far as practicable, to discharge sewage in accordance with the requirements of regulation 11 of the Annex.

Regulation 3

Exceptions

1. Regulation 11 of this Annex and section 4.2 of chapter 4 of part II-A of the Polar Code shall not apply to:
 - (a) the discharge of sewage from a ship necessary for the purpose of securing the safety of a ship and those on board or saving life at sea; or
 - (b) the discharge of sewage resulting from damage to a ship or its equipment if all reasonable precautions have been taken before and after the occurrence of the damage, for the purpose of preventing or minimizing the discharge.

9. 'n *Passasier* elke persoon behalwe—
 - (a) die meester en die lede van die bemanning of ander persone wat in enige hoedanigheid aan boord van 'n skip in diens of gehuur is vir die sake van daardie skip; en
 - (b) 'n kind onder die ouderdom van een jaar.
10. 'n *Passasierskip* 'n skip wat meer as twaalf passasiers vervoer. Vir die toepassing van regulasie 11.3 is 'n nuwe passasierskip 'n passasierskip:
 - (a) waarvoor die boukontrak geplaas is, of in die afwesigheid van 'n boukontrak, waarvan die kiel gelê is, of wat in 'n soortgelyke stadium van konstruksie is, op of na 1 Junie 2019; of
 - (b) waarvan die aflewering op of na 1 Junie 2021 is.
11. 'n *Bestaande passasierskip* is 'n passasierskip wat nie 'n nuwe passasierskip is nie.
12. *Jaardatum* die dag en die maand van elke jaar wat ooreenstem met die vervaldatum van die Internasionale Rioolbesoedelingsvoorkomingsertifikaat.
13. *Oudit* 'n sistematiese, onafhanklike en gedokumenteerde proses vir die verkryging van auditbewyse en die objektiewe evaluering daarvan om die omvang te bepaal waaraan aan auditmaatstawwe voldoen is.
14. *Ouditskema* die IMO Lidstaatouditskema wat deur die Organisasie gestig is en wat die riglyne wat deur die Organisasie ontwikkel is, in ag neem.
15. *Kode vir Inwerkingstelling* die “IMO Instruments Implementation Code (III Code)” wat deur die Organisasie aangeneem is deur resolusie A.1070(28).
16. *Ouditstandaard* die Kode vir Inwerkingstelling.

Regulasie 2

Toepassing

1. Die bepalings van hierdie Aanhangsel is van toepassing op die volgende skepe wat op internasionale vaarte is:
 - (a) nuwe skepe van 400 bruto tonnemaat en meer; en
 - (b) nuwe skepe van minder as 400 bruto tonnemaat wat gesertifiseer is om meer as 15 persone te vervoer; en
 - (c) bestaande skepe van 400 bruto tonnemaat en meer, vyf jaar na die datum van inwerkingtreding van hierdie Aanhangsel; en
 - (d) bestaande skepe van minder as 400 bruto tonnemaat wat gesertifiseer is om meer as 15 persone te vervoer, vyf jaar na die datum van inwerkingtreding van hierdie Aanhangsel.
2. Die Administrasie moet verseker dat bestaande skepe, volgens subparagrafe 1.3 en 1.4 van hierdie regulasie, waarvan die kiele gelê is of wat op 'n soortgelyke stadium van konstruksie is voor 2 Oktober 1983, so vòer moontlik toegerus moet word, om riool vry te stel ooreenkomstig die vereistes van regulasie 11 van die Aanhangsel.

Regulasie 3

Uitsonderings

1. Regulasie 11 van hierdie Aanhangsel en artikel 4.2 van hoofstuk 4 van deel II-A van die Poolkode is nie van toepassing nie op:
 - (a) die afvoer van riool vanaf 'n skip wat nodig is om die veiligheid van 'n skip en diegene wat aan boord is, te verseker of om 'n lewe op see te red; of
 - (b) die afvoer van riool as gevolg van skade aan 'n skip of die toerusting daarvan indien alle redelike voorsorgmaatreëls in plek was voor en na die voorkoms van die skade, vir die doel van voorkoming of minimalisering van die afvoer.

Chapter 2**Surveys and certification****Regulation 4***Surveys*

1. Every ship which, in accordance with regulation 2, is required to comply with the provisions of this Annex shall be subject to the surveys specified below:
 - (a) An initial survey before the ship is put in service or before the Certificate required under regulation 5 of this Annex is issued for the first time, which shall include a complete survey of its structure, equipment, systems, fittings, arrangements and material in so far as the ship is covered by this Annex. This survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and materials fully comply with the applicable requirements of this Annex.
 - (b) A renewal survey at intervals specified by the Administration, but not exceeding five years, except where regulation 8.2, 8.5, 8.6 or 8.7 of this Annex is applicable. The renewal survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and materials fully comply with applicable requirements of this Annex.
 - (c) An additional survey, either general or partial, according to the circumstances, shall be made after a repair resulting from investigations prescribed in paragraph 9 of this regulation, or whenever any important repairs or renewals are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of this Annex.
2. The Administration shall establish appropriate measures for ships which are not subject to the provisions of paragraph 1 of this regulation in order to ensure that the applicable provisions of this Annex are complied with.
3. Surveys of ships as regards the enforcement of the provisions of this Annex shall be carried out by officers of the Administration. The Administration may, however, entrust the surveys either to surveyors nominated for the purpose or to organizations recognized by it.
4. An Administration nominating surveyors or recognizing organizations to conduct surveys as set forth in paragraph 3 of this regulation shall, as a minimum, empower any nominated surveyor or recognized organization to:
 - (a) require repairs to a ship; and
 - (b) carry out surveys if requested by the appropriate authorities of a Port State.
5. The Administration shall notify the Organization of the specific responsibilities and conditions of the authority delegated to the nominated surveyors or recognized organizations, for circulation to Parties to the present Convention for the information of their officers.
6. When a nominated surveyor or recognized organization determines that the condition of the ship or its equipment does not correspond substantially with the particulars of the Certificate or is such that the ship is not fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment, such surveyor or organization shall immediately ensure that corrective action is taken and shall in due course notify the Administration. If such corrective action is not taken, the Certificate should be withdrawn and the Administration shall be notified immediately and if the ship is in a port of another Party, the appropriate authorities of the Port State shall also be notified immediately. When an officer of the Administration, a nominated surveyor or recognized organization has notified the appropriate authorities of the Port State, the Government of the Port State

Hoofstuk 2**Opnames en sertifisering****Regulasie 4***Opnames*

1. Elke skip wat, ooreenkomstig regulasie 2, aan die bepalings van hierdie Aanhangsel moet voldoen, sal onderworpe wees aan die opnames hieronder gespesifiseer:
 - (a) 'n Aanvanklike opname voordat die skip in diens geneem word of voordat die Sertifikaat wat kragtens regulasie 5 van hierdie Aanhangsel vereis word, vir die eerste keer uitgereik word, wat 'n volledige opname van sy struktuur, toerusting, stelsels, toebehore, reëlins en materiaal sal insluit in soverre die skip deur hierdie Aanhangsel gedek word. Hierdie opname moet van so 'n aard wees dat dit verseker dat die struktuur, toerusting, stelsels, toebehore, reëlins en materiale ten volle aan die toepaslike vereistes van hierdie Aanhangsel voldoen.
 - (b) 'n Hernuwingsopname met tussenposes wat deur die Administrasie gespesifiseer is, maar wat nie langer as vyf jaar is nie, behalwe waar regulasie 8.2, 8.5, 8.6 of 8.7 van hierdie Aanhangsel van toepassing is. Die hernuwingsopname moet van so 'n aard wees dat dit verseker dat die struktuur, toerusting, stelsels, toebehore, reëlins en materiale ten volle aan die toepaslike vereistes van hierdie Aanhangsel voldoen.
 - (c) 'n Bykomende opname, hetsy algemeen of gedeeltelik, volgens die omstandighede, moet gemaak word na 'n herstel wat voortspruit uit ondersoek voorgeskryf in paragraaf 9 van hierdie regulasie, of wanneer enige belangrike herstelwerk of hernuwings gemaak word. Die opname moet van so 'n aard wees dat dit verseker dat die nodige herstelwerk of hernuwings doeltreffend gemaak is, dat die materiaal en vakmanskap van sodanige herstelwerk of hernuwings in alle opsigte bevredigend is en dat die skip in alle opsigte aan die vereistes van hierdie Aanhangsel voldoen.
2. Die Administrasie moet toepaslike maatreëls instel vir skepe wat nie aan die bepalings van paragraaf 1 van hierdie regulasie onderworpe is nie, ten einde te verseker dat die toepaslike bepalings van hierdie Aanhangsel nagekom word.
3. Opnames van skepe met betrekking tot die afdwinging van die bepalings van hierdie Aanhangsel, moet deur beamptes van die Administrasie uitgevoer word. Die Administrasie kan die opnames egter toevertrou aan opnemers wat vir die doel genomineer is of aan organisasies wat deur die Administrasie erken word.
4. 'n Administrasie wat skeepsinspekteurs of erkende organisasies benoem om opnames uit te voer soos in paragraaf 3 van hierdie regulasie uiteengesit, moet, ten minste, enige genomineerde opnemer of erkende organisasie bemagtig om:
 - (a) herstelwerk aan 'n skip te vereis; en
 - (b) opnames uit te voer indien dit deur die toepaslike owerhede van 'n hawestaat aangevra word.
5. Die Administrasie moet die Organisasie in kennis stel van die spesifieke verantwoordelikhede en voorwaardes van die gesag wat aan die genomineerde skeepsinspekteurs of erkende organisasies toegewys is, vir sirkulasie aan Partye tot die huidige Konvensie ter inligting van hulle offisiere.
6. Wanneer 'n genomineerde opnemer of erkende organisasie bepaal dat die toestand van die skip of toerusting daarvan nie wesenlik ooreenstem met die besonderhede van die Sertifikaat nie of so is dat die skip nie geskik is om op see te gaan sonder om 'n onredelike bedreiging van skade aan die mariene omgewing in te hou nie, moet sodanige opnemer of organisasie onmiddellik verseker dat regstellende stappe gedoen word en moet die Administrasie ter geleger tyd in kennis stel. Indien sodanige regstellende stappe nie gedoen word nie, moet die Sertifikaat teruggetrek word en die Administrasie moet onmiddellik in kennis gestel word en indien die skip in 'n hawe van 'n ander Party is, sal die toepaslike owerhede van die hawestaat ook onmiddellik in kennis gestel word. Wanneer 'n beampte van die Administrasie, 'n genomineerde opmeter of erkende organisasie die toepaslike

concerned shall give such officer, surveyor or organization any necessary assistance to carry out their obligations under this regulation. When applicable, the Government of the Port State concerned shall take such steps as will ensure that the ship shall not sail until it can proceed to sea or leave the port for the purpose of proceeding to the nearest appropriate repair yard available without presenting an unreasonable threat of harm to the marine environment.

7. In every case, the Administration concerned shall fully guarantee the completeness and efficiency of the survey and shall undertake to ensure the necessary arrangements to satisfy this obligation.
8. The condition of the ship and its equipment shall be maintained to conform with the provisions of the present Convention to ensure that the ship in all respects will remain fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment.
9. After any survey of the ship under paragraph 1 of this regulation has been completed, no change shall be made in the structure, equipment, systems, fittings, arrangements or materials covered by the survey, without the sanction of the Administration, except the direct replacement of such equipment and fittings.
10. Whenever an accident occurs to a ship or a defect is discovered which substantially affects the integrity of the ship or the efficiency or completeness of its equipment covered by this Annex, the master or owner of the ship shall report at the earliest opportunity to the Administration, the recognized organization or the nominated surveyor responsible for issuing the relevant Certificate, who shall cause investigations to be initiated to determine whether a survey as required by paragraph 1 of this regulation is necessary. If the ship is in a port of another Party, the master or owner shall also report immediately to the appropriate authorities of the Port State and the nominated surveyor or recognized organization shall ascertain that such report has been made.

Regulation 5

Issue or endorsement of Certificate

1. An International Sewage Pollution Prevention Certificate shall be issued, after an initial or renewal survey in accordance with the provisions of regulation 4 of this Annex, to any ship which is engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention. In the case of existing ships this requirement shall apply five years after the date of entry into force of this Annex.
2. Such Certificate shall be issued or endorsed either by the Administration or by any persons or organization* duly authorized by it. In every case, the Administration assumes full responsibility for the Certificate.

Regulation 6

Issue or endorsement of a Certificate by another Government

1. The Government of a Party to the Convention may, at the request of the Administration, cause a ship to be surveyed and, if satisfied that the provisions of this Annex are complied with, shall issue or authorize the issue of an International Sewage Pollution Prevention Certificate to the ship, and where appropriate, endorse or authorize the endorsement of that Certificate on the ship in accordance with this Annex.
2. A copy of the Certificate and a copy of the survey report shall be transmitted as soon as possible to the Administration requesting the survey.
3. A Certificate so issued shall contain a statement to the effect that it has been issued

owerhede van die hawestaat in kennis gestel het, moet die regering van die betrokke hawestaat sodanige beampte, opnemer of organisasie enige nodige bystand verleen om hul verpligtinge kragtens hierdie regulasie na te kom. Wanneer van toepassing, moet die regering van die betrokke hawestaat die stappe doen wat sal verseker dat die skip nie sal vaar totdat dit na die see kan voortgaan of die hawe kan verlaat met die doel om na die naaste toepaslike herstelwerf wat beskikbaar is, te gaan sonder om 'n onredelike bedreiging vir skade aan die mariene omgewing in te hou nie.

7. In elke geval, moet die betrokke Administrasie die volledigheid en doeltreffendheid van die opname ten volle waarborg en moet onderneem om die nodige reëlins te tref om hierdie verpligting na te kom.
8. Die toestand van die skip en die toerusting daarvan moet onderhou word om te voldoen aan die bepalings van hierdie Konvensie om te verseker dat die skip in alle opsigte geskik sal bly om op see te gaan sonder om 'n onredelike bedreiging van skade aan die mariene omgewing in te hou.
9. Nadat enige opname van die skip kragtens paragraaf 1 van hierdie regulasie voltooi is, mag geen verandering aangebring word aan die struktuur, toerusting, stelsels, toebehore, reëlins of materiaal wat deur die opname gedek word nie, sonder die goedkeuring van die Administrasie, behalwe die direkte vervanging van sodanige toerusting en toebehore.
10. Wanneer 'n skip in 'n ongeluk is of 'n gebrek ontdek word wat die integriteit van die skip of die doeltreffendheid of volledigheid van die skip se toerusting wat deur hierdie Aanhangsel gedek word, wesenlik aantas, moet die meester of eienaar van die skip dit so gou moontlik aan die Administrasie, die erkende organisasie of die benoemde opnemer verantwoordelik vir die uitreiking van die betrokke Sertifikaat, rapporteer, wat ondersoek moet laat begin om te bepaal of 'n opname soos deur paragraaf 1 van hierdie regulasie vereis, nodig is. Indien die skip in 'n hawe van 'n ander Party is, moet die meester of eienaar ook onmiddellik aan die toepaslike owerhede van die hawestaat rapporteer en die genomineerde opnemer of erkende organisasie moet seker maak dat sodanige verslag gedoen is.

Regulasie 5

Uitreiking of endossering van Sertifikaat

1. 'n Internasionale Rioolbesoedelingsvoorkomingsertifikaat moet uitgereik word, na 'n aanvanklike of hernuwingsopname ooreenkomstig die bepalings van regulasie 4 van hierdie Aanhangsel, aan enige skip wat besig is met vaarte na hawens of buitelandse terminale onder die jurisdiksie van ander Partye tot die Konvensie. In die geval van bestaande skepe word hierdie vereiste vyf jaar na die datum van inwerkingtreding van hierdie Aanhangsel van toepassing.
2. Sodanige Sertifikaat sal uitgereik of geëndosseer word óf deur die Administrasie óf deur enige persone of organisasie* wat behoorlik deur die Administrasie gemagtig is. In elke geval aanvaar die Administrasie volle verantwoordelikheid vir die Sertifikaat.

Regulasie 6

Uitreiking of endossering van 'n Sertifikaat deur 'n ander Regering

1. Die Regering van 'n Party tot die Konvensie kan, op versoek van die Administrasie, 'n skip laat opmeet en, indien tevrede dat die bepalings van hierdie Aanhangsel nagekom word, 'n Internasionale Rioolbesoedelingsvoorkomingsertifikaat aan die skip uitreik of die uitreiking daarvan magtig, en waar toepaslik, die bekragtiging van daardie Sertifikaat op die skip ooreenkomstig hierdie Aanhangsel endosseer of magtig.
2. 'n Afskrif van die Sertifikaat en 'n afskrif van die opnameverslag moet so gou moontlik aan die Administrasie wat die opname aanvra, gestuur word.
3. 'n Sertifikaat wat aldus uitgereik is, moet 'n verklaring bevat te dien effekte dat dit op versoek van die Administrasie uitgereik is en dit sal dieselfde krag hê en

at the request of the Administration and it shall have the same force and receive the same recognition as the Certificate issued under regulation 5 of this Annex.

4. No International Sewage Pollution Prevention Certificate shall be issued to a ship which is entitled to fly the flag of a State which is not a Party.

Regulation 7

Form of Certificate

1. The International Sewage Pollution Prevention Certificate shall be drawn up in the form corresponding to the model given in the appendix to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.

Regulation 8

Duration and validity of Certificate

1. An International Sewage Pollution Prevention Certificate shall be issued for a period specified by the Administration which shall not exceed five years.
2. Notwithstanding the requirements of paragraph 1 of this regulation, when the renewal survey is completed within three months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing Certificate.
3. When the renewal survey is completed after the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing Certificate.
4. When the renewal survey is completed more than three months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of completion of the renewal survey.
5. If a Certificate is issued for a period of less than five years, the Administration may extend the validity of the Certificate beyond the expiry date to the maximum period specified in paragraph 1 of this regulation.
6. If a renewal survey has been completed and a new Certificate cannot be issued or placed on board the ship before the expiry date of the existing Certificate, the person or organization authorized by the Administration may endorse the existing Certificate and such a Certificate shall be accepted as valid for a further period which shall not exceed five months from the expiry date.
7. If a ship at the time when a Certificate expires is not in a port in which it is to be surveyed, the Administration may extend the period of validity of the Certificate but this extension shall be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed and then only in cases where it appears proper and reasonable to do so. No Certificate shall be extended for a period longer than three months, and a ship to which an extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port without having a new Certificate. When the renewal survey is completed, the new Certificate shall be valid to a date not exceeding five years from the date of expiry of the existing Certificate before the extension was granted.
8. A Certificate issued to a ship engaged on short voyages which has not been extended under the fore-going 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. When the renewal survey is completed, the new Certificate shall be

dieselfde erkenning ontvang as die Sertifikaat wat kragtens regulasie 5 van hierdie Aanhangsel uitgereik is.

4. Geen Internasionale Rioolbesoedelingsvoorkomingsertifikaat sal uitgereik word aan 'n skip wat geregtig is om die vlag te hys van 'n Staat wat nie 'n Party is nie.

Regulasie 7

Vorm van Sertifikaat

1. Die Internasionale Rioolbesoedelingsvoorkomingsertifikaat moet opgestel word in die vorm wat ooreenstem met die model gegee in die bylae van hierdie Aanhangsel en moet ten minste in Engels, Frans of Spaans wees. Indien 'n amptelike taal van die land van uitreiking ook gebruik word, sal dit geld in die geval van 'n geskil of teenstrydigheid.

Regulasie 8

Duur en geldigheid van Sertifikaat

1. 'n Internasionale Rioolbesoedelingsvoorkomingsertifikaat word uitgereik vir 'n tydperk wat deur die Administrasie gespesifiseer word, wat nie vyf jaar mag oorskry nie.
2. Nieteenstaande die vereistes van paragraaf 1 van hierdie regulasie, wanneer die hernuwingsopname binne drie maande voor die vervaldatum van die bestaande Sertifikaat voltooi word, sal die nuwe Sertifikaat geldig wees vanaf die datum van voltooiing van die hernuwingsopname tot 'n datum van hoogstens vyf jaar vanaf die vervaldatum van die bestaande Sertifikaat.
3. Wanneer die hernuwingsopname na die vervaldatum van die bestaande Sertifikaat voltooi word, sal die nuwe Sertifikaat geldig wees vanaf die datum van voltooiing van die hernuwingsopname tot 'n datum van hoogstens vyf jaar vanaf die vervaldatum van die bestaande Sertifikaat.
4. Wanneer die hernuwingsopname meer as drie maande voor die vervaldatum van die bestaande Sertifikaat voltooi word, is die nuwe Sertifikaat geldig vanaf die datum van voltooiing van die hernuwingsopname tot 'n datum van hoogstens vyf jaar vanaf die datum van voltooiing van die hernuwingsopname.
5. Indien 'n Sertifikaat vir 'n tydperk van minder as vyf jaar uitgereik word, kan die Administrasie die geldigheid van die Sertifikaat na die vervaldatum verleng tot die maksimum tydperk gespesifiseer in paragraaf 1 van hierdie regulasie.
6. Indien 'n hernuwingsopname voltooi is en 'n nuwe Sertifikaat nie uitgereik of aan boord van die skip geplaas kan word voor die vervaldatum van die bestaande Sertifikaat nie, kan die persoon of organisasie wat deur die Administrasie gemagtig is, die bestaande Sertifikaat endosseer en so 'n Sertifikaat moet aanvaar word as geldig vir 'n verdere tydperk van hoogstens vyf maande sedert die vervaldatum.
7. Indien 'n skip op die tydstip wanneer 'n Sertifikaat verval nie in 'n hawe is waarin dit opgemeet gaan word nie, kan die Administrasie die geldigheidstydperk van die Sertifikaat verleng, maar hierdie verlenging moet slegs toegestaan word met die doel om die skip toe te laat om sy vaart na die hawe te voltooi waarin dit opgemeet gaan word en dan slegs in gevalle waar dit behoorlik en redelik blyk om dit te doen. Geen Sertifikaat sal vir 'n tydperk langer as drie maande verleng word nie, en 'n skip waaraan 'n verlenging toegestaan word, sal nie, by sy aankoms in die hawe waarin dit opgemeet gaan word, op grond van sodanige verlenging geregtig wees om daardie hawe sonder 'n nuwe sertifikaat te verlaat nie. Wanneer die hernuwingsopname voltooi is, sal die nuwe Sertifikaat geldig wees tot 'n datum van hoogstens vyf jaar vanaf die vervaldatum van die bestaande Sertifikaat voordat die verlenging toegestaan is.
8. 'n Sertifikaat wat uitgereik is aan 'n skip wat op kort vaarte besig is en wat nie verleng is kragtens die voorgaande bepalings van hierdie regulasie nie, kan deur die Administrasie verleng word vir 'n grasietydperk van tot een maand vanaf die vervaldatum daarop vermeld. Wanneer die hernuwingsopname voltooi is, sal die

valid to a date not exceeding five years from the date of expiry of the existing Certificate before the extension was granted.

9. In special circumstances, as determined by the Administration, a new Certificate need not be dated from the date of expiry of the existing Certificate as required by paragraph 2.2, 5 or 6 of this regulation. In these special circumstances, the new Certificate shall be valid to a date not exceeding five years from the date of completion of the renewal survey.
10. A Certificate issued under regulation 5 or 6 of this Annex shall cease to be valid in any of the following cases—
 - (a) if the relevant surveys are not completed within the periods specified under regulation 4.1 of this Annex; or
 - (b) upon transfer of the ship to the flag of another State. A new Certificate shall only be issued when the Government issuing the new Certificate is fully satisfied that the ship is in compliance with the requirements of regulations 4.7 and 4.8 of this Annex. In the case of a transfer between Parties, if requested within 3 months after the transfer has taken place, the Government of the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the Certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports.

Chapter 3

Equipment and control of discharge

Regulation 9

Sewage systems

1. Every ship which, in accordance with regulation 2, is required to comply with the provisions of this Annex shall be equipped with one of the following sewage systems:
 - (a) a sewage treatment plant which shall be of a type approved by the Administration, taking into account the standards and test methods developed by the Organization, or
 - (b) a sewage comminuting and disinfecting system approved by the Administration. Such system shall be fitted with facilities to the satisfaction of the Administration, for the temporary storage of sewage when the ship is less than 3 nautical miles from the nearest land, or
 - (c) a holding tank of the capacity to the satisfaction of the Administration for the retention of all sewage, having regard to the operation of the ship, the number of persons on board and other relevant factors. The holding tank shall be constructed to the satisfaction of the Administration and shall have a means to indicate visually the amount of its contents.
2. By derogation from paragraph 1, every passenger ship which, in accordance with regulation 2, is required to comply with the provisions of this Annex, and for which regulation 11.3 applies while in a special area, shall be equipped with one of the following sewage systems:
 - (a) a sewage treatment plant which shall be of a type approved by the Administration, taking into account the standards and test methods developed by the Organization, or
 - (b) a holding tank of the capacity to the satisfaction of the Administration for the retention of all sewage, having regard to the operation of the ship, the number of persons on board and other relevant factors. The holding tank shall be constructed to the satisfaction of the Administration and shall have a means to indicate visually the amount of its contents.

nuwe Sertifikaat geldig wees tot 'n datum van hoogstens vyf jaar vanaf die vervaldatum van die bestaande Sertifikaat voordat die verlenging toegestaan is.

9. In spesiale omstandighede, soos deur die Administrasie bepaal, hoef 'n nuwe Sertifikaat nie gedateer te word vanaf die vervaldatum van die bestaande Sertifikaat soos vereis deur paragraaf 2.2, 5 of 6 van hierdie regulasie nie. In hierdie spesiale omstandighede sal die nuwe Sertifikaat geldig wees tot 'n datum van hoogstens vyf jaar vanaf die datum van voltooiing van die hernuwingsopname.
10. 'n Sertifikaat wat kragtens regulasie 5 of 6 van hierdie Aanhangel uitgereik is, hou op om geldig te wees in enige van die volgende gevalle—
 - (a) indien die betrokke opnames nie voltooi word binne die tydperke gespesifiseer onder regulasie 4.1 van hierdie Aanhangel nie; of
 - (b) by oordrag van die skip na die vlag van 'n ander staat. 'n Nuwe sertifikaat word slegs uitgereik wanneer die Regering wat die nuwe Sertifikaat uitreik heeltemal oortuig is dat die skip aan die vereistes van regulasies 4.7 en 4.8 van hierdie Aanhangel voldoen. In die geval van 'n oordrag tussen partye, indien versoek binne 3 maande nadat die oordrag plaasgevind het, moet die regering van die party wie se vlag die skip voorheen geregtig was om te hys, so gou moontlik afskrifte van die Sertifikaat wat die skip voor die oordrag gedra het, en indien beskikbaar, afskrifte van die tersaaklike opnameverslae aan die Administrasie oordra.

Hoofstuk 3

Toerusting en beheer van afvoer

Regulasie 9

Rioolstelsels

1. Elke skip wat, ooreenkomstig regulasie 2, aan die bepalings van hierdie Aanhangel moet voldoen, moet toegerus wees met een van die volgende rioolstelsels:
 - (a) 'n rioolsuiweringsaanleg wat van 'n tipe moet wees wat deur die Administrasie goedgekeur is, met inagneming van die standarde en toetsmetodes wat deur die Organisasie ontwikkel is, of
 - (b) 'n rioolopkerwer- en ontsmettingstelsel wat deur die Administrasie goedgekeur is. Sodanige stelsel moet toegerus wees met fasiliteite tot die bevrediging van die Administrasie, vir die tydelike berging van riool wanneer die skip minder as 3 seemyl van die naaste land af is, of
 - (c) 'n riooltenk met 'n kapasiteit waarmee die Administrasie tevrede is, vir die terughou van alle riool, met inagneming van die bedryf van die skip, die aantal persone aan boord en ander relevante faktore. Die riooltenk moet tot die bevrediging van die Administrasie gebou word en moet die hoeveelheid inhoud daarvan visueel kan aandui.
2. In afwyking van paragraaf 1, moet elke passasierskip wat, ooreenkomstig regulasie 2, aan die bepalings van hierdie Aanhangel moet voldoen, en waarop regulasie 11.3 van toepassing is terwyl dit in 'n spesiale gebied is, toegerus wees met een van die volgende rioolstelsels:
 - (a) 'n rioolsuiweringsaanleg wat van 'n tipe moet wees wat deur die Administrasie goedgekeur is, met inagneming van die standarde en toetsmetodes wat deur die Organisasie ontwikkel is, of
 - (b) 'n riooltenk met die kapasiteit wat die Administrasie tevrede stel, vir die terughou van alle riool, met inagneming van die bedryf van die skip, die aantal persone aan boord en ander relevante faktore. Die riooltenk moet tot die bevrediging van die Administrasie gebou word en moet die hoeveelheid inhoud daarvan visueel kan aandui.

Regulation 10

Standard discharge connections

1. To enable pipes of reception facilities to be connected with the ship’s discharge pipeline, both lines shall be fitted with a standard discharge connection in accordance with the following table:

Standard dimensions of flanges for discharge connections

Description	Dimension
Outside diameter	210 mm
Inner diameter	According to pipe outside diameter
Bolt circle diameter	170 mm
Slots in flange	4 holes, 18 mm in diameter, equidistantly placed on a bolt circle of the above diameter, slotted to the flange periphery. The slot width to be 18 mm
Flange thickness	16 mm
Bolts and nuts: quantity and diameter	4, each of 16 mm in diameter and of suitable length
The flange is designed to accept pipes up to a maximum internal diameter of 100 mm and shall be of steel or other equivalent material having a flat face. This flange, together with a suitable gasket, shall be suitable for a service pressure of 600 kPa. For ships having a moulded depth of 5 m and less, the inner diameter of the discharge connection may be 38 mm.	

2. For ships in dedicated trades, i.e. passenger ferries, alternatively the ship’s discharge pipeline may be fitted with a discharge connection which can be accepted by the Administration, such as quick-connection couplings.

Regulation 11

Discharge of sewage

A. Discharge of sewage from ships other than passenger ships in all areas and discharge of sewage from passenger ships outside special areas

1. Subject to the provisions of regulation 3 of this Annex, the discharge of sewage into the sea is prohibited, except when:
- (a) the ship is discharging comminuted and disinfected sewage using a system approved by the Administration in accordance with regulation 9.1.2 of this Annex at a distance of more than 3 nautical miles from the nearest land, or sewage which is not comminuted or disinfected, at a distance of more than 12 nautical miles from the nearest land, provided that, in any case, the sewage that has been stored in holding tanks, or sewage originating from spaces containing living animals, shall not be discharged instantaneously but at a moderate rate when the ship is en route and proceeding at not less than 4 knots; the rate of discharge shall be approved by the Administration based upon standards developed by the Organization;* or
 - (b) the ship has in operation an approved sewage treatment plant which has been certified by the Administration to meet the operational requirements referred to in regulation 9.1.1 of this Annex, and the effluent shall not produce visible floating solids nor cause discoloration of the surrounding water.
2. The provisions of paragraph 1 shall not apply to ships operating in the waters under the jurisdiction of a State and visiting ships from other States while they are in these waters and are discharging sewage in accordance with such less stringent requirements as may be imposed by such State.

B. Discharge of sewage from passenger ships within a special area

3. Subject to the provisions of regulation 3 of this Annex, the discharge of sewage from a passenger ship within a special area shall be prohibited:
- (a) for new passenger ships, on a date determined by the Organization pursuant to regulation 13.2 of this Annex, but in no event prior to 1 June 2019; and
 - (b) for existing passenger ships, on a date determined by the Organization pursuant to regulation 13.2 of this Annex, but in no event prior to 1 June 2021, except when the following conditions are satisfied: the ship has in operation

Regulasie 10

Standaard ontladingsverbindings

1. Om pype van ontvangsfasiliteite in staat te stel om met die skip se afvoerpypleiding verbind te word, moet beide lyne toegerus wees met ’n standaard afvoeraansluiting in ooreenstemming met die volgende tabel:

Standaardafmetings van flense vir afvoerverbindings

Beskrywing	Afmeting
Buite deursnee	210 mm
Binne deursnee	Volgens buite deursnee van pyp
Boutsirkel deursnee	170 mm
Gleuwe in flens	4 gate, 18 mm in deursnee, ewe ver geplaas op ’n boutsirkel van bogenoemde deursnee, pas in die flensomtrek. Die gleufwydte moet 18 mm wees
Flens dikte	16 mm
Boute en moere: hoeveelheid en deursnee	4, elk 16 mm in deursnee en van ’n geskikte lengte
Die flens is ontwerp om pype tot ’n maksimum binne deursnee van 100 mm te vat en moet van staal of ander gelykwaardige materiaal met ’n plat vlak wees. Hierdie flens, tesame met ’n geskikte pakking, moet geskik wees vir ’n diensdruk van 600 kPa. Vir skepe met ’n gevormde diepte van 5 m en minder, kan die binnedeursnee van die afvoerverbinding 38 mm wees.	

2. Vir skepe in toegewyde bedrywe, dit wil sê passasiersveerbote, kan die skip se afvoerpypleiding as ’n alternatief toegerus wees met ’n afvoerverbinding wat deur die Administrasie aanvaar kan word, soos vinnige koppelings.

Regulasie 11

Afvoer van riool

A. Afvoer van riool vanaf ander skepe as passasiersskepe in alle gebiede en afvoer van riool vanaf passasiersskepe buite spesiale gebiede

1. Behoudens die bepalings van regulasie 3 van hierdie Aanhangsel, word die storting van riool in die see verbied, behalwe wanneer:
- (a) die skip besig is om opgekerfde en ontsmette riool af te voer deur gebruik te maak van ’n stelsel wat deur die Administrasie goedgekeur is ooreenkomstig regulasie 9.1.2 van hierdie Aanhangsel op ’n afstand van meer as 3 seemyl vanaf die naaste land, of riool wat nie opgekerf of ontsmet is nie, op ’n afstand van meer as 12 seemyl vanaf die naaste land, met dien verstande dat, in enige geval, die riool wat in riooltenks opgegaar is, of riool afkomstig van ruimtes wat lewende diere bevat, nie oombliklik nie, maar teen ’n matige tempo wanneer die skip vaar en teen nie minder nie as 4 knope vaar, afgevoer moet word; die tempo van afvoer sal deur die Administrasie goedgekeur word, gegrond op standarde wat deur die Organisasie* ontwikkel is; of
- (b) die skip ’n goedgekeurde, werkende rioolsuiweringsaanleg het wat deur die Administrasie gesertifiseer is om te voldoen aan die bedryfsvereistes bedoel in regulasie 9.1.1 van hierdie Aanhangsel, en die uitvloeisel mag nie sigbare drywende vaste stowwe produseer of die omliggende water verkleur nie.
2. Die bepalings van paragraaf 1 is nie van toepassing nie op skepe wat in die waters onder die jurisdiksie van ’n Staat bedryf en besoekende skepe van ander State terwyl hulle in hierdie waters is en riool afvoer ooreenkomstig die minder streng vereistes wat deur sodanige Staat opgelê kan word.

B. Afvoer van riool van passasiersskepe binne ’n spesiale gebied

3. Behoudens die bepalings van regulasie 3 van hierdie Aanhangsel, is die storting van riool vanaf ’n passasierskip binne ’n spesiale gebied verbode:
- (a) vir nuwe passasiersskepe, met ingang van ’n datum deur die Organisasie bepaal ooreenkomstig regulasie 13.2 van hierdie Aanhangsel, maar in geen geval voor 1 Junie 2019 nie; en
- (b) vir bestaande passasiersskepe, op ’n datum bepaal deur die Organisasie ooreenkomstig regulasie 13.2 van hierdie Aanhangsel, maar in geen geval voor 1 Junie 2021 nie, behalwe wanneer die volgende voorwaardes nagekom

an approved sewage treatment plant which has been certified by the Administration to meet the operational requirements referred to in regulation 9.2.1 of this Annex, and the effluent shall not produce visible floating solids nor cause discoloration of the surrounding water.

C. General requirements

4. When the sewage is mixed with wastes or waste water covered by other Annexes of the present Convention, the requirements of those Annexes shall be complied with in addition to the requirements of this Annex.

Chapter 4

Reception facilities

Regulation 12

Reception facilities

1. The Government of each Party to the Convention, which requires ships operating in waters under its jurisdiction and visiting ships while in its waters to comply with the requirements of regulation 11.1, undertakes to ensure the provision of facilities at ports and terminals for the reception of sewage, without causing delay to ships, adequate to meet the needs of the ships using them.
2. Small Island Developing States may satisfy the requirements in paragraphs 1 to 3 of this regulation through regional arrangements when, because of those States' unique circumstances, such arrangements are the only practical means to satisfy these requirements. Parties participating in a regional arrangement shall develop a Regional Reception Facilities Plan, taking into account the guidelines developed by the Organization. The Government of each Party participating in the arrangement shall consult with the Organization, for circulation to the Parties of the present Convention:
 - (a) how the Regional Reception Facilities Plan takes into account the Guidelines;
 - (b) particulars of the identified Regional Ships Waste Reception Centres; and
 - (c) particulars of those ports with only limited facilities.
3. The Government of each Party shall notify the Organization, for transmission to the Contracting Governments concerned, of all cases where the facilities provided under this regulation are alleged to be inadequate.

Regulation 13

Reception facilities for passenger ships in special areas

1. Each Party, the coastline of which borders a special area, undertakes to ensure that:
 - (a) facilities for the reception of sewage are provided in ports and terminals which are in a special area and which are used by passenger ships;
 - (b) the facilities are adequate to meet the needs of those passenger ships; and
 - (c) the facilities are operated so as not to cause undue delay to those passenger ships.
2. The Government of each Party concerned shall notify the Organization of the measures taken pursuant to paragraph 1 of this regulation. Upon receipt of sufficient notifications in accordance with paragraph 1 of this regulation, the Organization shall establish a date from which the requirements of regulation 11.3 in respect of the area in question shall take effect. The Organization shall notify all Parties of the date so established no less than 12 months in advance of that date. Until the date so established, ships while navigating in the special area shall comply with the requirements of regulation 11.1 of this Annex.

is: die skip het 'n goedgekeurde, werkende rioolsuiweringsaanleg wat deur die Administrasie gesertifiseer is dat dit voldoen aan die bedryfsvereistes in regulasie 9.2.1 van hierdie Aanhangsel bedoel, en die uitvloeisel mag nie sigbare drywende vaste stowwe produseer of verkleuring van die omliggende water veroorsaak nie.

C. Algemene vereistes

4. Wanneer die riool gemeng word met afval of afvalwater wat deur ander Aanhangsels van hierdie Konvensie gedek word, moet die vereistes van daardie Aanhangsels nagekom word bykomend tot die vereistes van hierdie Aanhangsel.

Hoofstuk 4

Ontvangsfasiliteite

Regulasie 12

Ontvangsfasiliteite

1. Die Regering van elke Party tot die Konvensie, wat vereis dat skepe wat in waters onder sy jurisdiksie bedryf en besoekende skepe terwyl hulle in sy waters is om aan die vereistes van regulasie 11.1 te voldoen, onderneem om die voorsiening van fasiliteite by hawens en terminale vir die ontvangs van riool te verseker, sonder om vertraging vir skepe te veroorsaak, wat voldoende is om in die behoeftes van die skepe wat dit gebruik, te voorsien.
2. Klein-eiland-ontwikkelende state kan aan die vereistes in paragrafe 1 tot 3 van hierdie regulasie voldoen deur streeksreëlings wanneer, as gevolg van daardie state se unieke omstandighede, sulke reëlings die enigste praktiese manier is om aan hierdie vereistes te voldoen. Partye wat aan 'n streeksreëling deelneem, moet 'n Streeksontvangsfasiliteiteplan ontwikkel, met inagneming van die riglyne wat deur die Organisasie ontwikkel is. Die Regering van elke Party wat aan die reëling deelneem, sal met die Organisasie oorleg pleeg, vir sirkulasie aan die Partye van hierdie Konvensie:
 - (a) hoe die Streeksontvangsfasiliteiteplan die Riglyne in ag neem;
 - (b) besonderhede van die geïdentifiseerde streekskeepsafvalopvangsentrums; en
 - (c) besonderhede van daardie hawens wat slegs beperkte fasiliteite het.
3. Die Regering van elke Party sal die Organisasie in kennis stel, vir oordrag aan die betrokke Kontrakterende Regerings, van alle gevalle waar die fasiliteite wat kragtens hierdie regulasie voorsien word, na bewering onvoldoende is.

Regulasie 13

Ontvangsfasiliteite vir passasierskepe in spesiale gebiede

1. Elke Party, waarvan die kuslyn aan 'n spesiale gebied grens, onderneem om te verseker dat:
 - (a) fasiliteite vir die ontvangs van riool voorsien word in hawens en terminale wat in 'n spesiale gebied is en wat deur passasierskepe gebruik word;
 - (b) die fasiliteite voldoende is om in die behoeftes van daardie passasierskepe te voorsien; en
 - (c) die fasiliteite so bedryf word dat dit nie onnodige vertraging aan daardie passasierskepe veroorsaak nie.
2. Die Regering van elke betrokke Party stel die Organisasie in kennis van die maatreëls wat ingevolge paragraaf 1 van hierdie regulasie getref is. By ontvangs van voldoende kennisgewings in ooreenstemming met paragraaf 1 van hierdie regulasie, sal die Organisasie 'n datum vasstel met ingang waarvan die vereistes van regulasie 11.3 ten opsigte van die betrokke gebied in werking tree. Die Organisasie moet alle Partye in kennis stel van die datum wat aldus vasgestel is, nie minder as 12 maande voor daardie datum nie. Tot die datum aldus vasgestel, moet skepe terwyl hulle in die spesiale gebied navigeer aan die vereistes van regulasie 11.1 van hierdie Aanhangsel voldoen.

Chapter 5**Port State control****Regulation 14***Port State control on operational requirements*

1. A ship when in a port or an offshore terminal of another Party is subject to inspection by officers duly authorized by such Party concerning operational requirements under this Annex, where there are clear grounds for believing that the master or crew are not familiar with essential shipboard procedures relating to the prevention of pollution by sewage.
2. In the circumstances given in paragraph 1 of this regulation, the Party shall take such steps as will ensure that the ship shall not sail until the situation has been brought to order in accordance with the requirements of this Annex.
3. Procedures relating to the port State control prescribed in article 5 of the present Convention shall apply to this regulation.
4. Nothing in this regulation shall be construed to limit the rights and obligations of a Party carrying out control over operational requirements specifically provided for in the present Convention.

Chapter 6**Verification of compliance with the provisions of this Annex****Regulation 15***Application*

1. Parties shall use the provisions of the Code for Implementation in the execution of their obligations and responsibilities contained in this Annex.

Regulation 16*Verification of compliance*

1. Every Party shall be subject to periodic audits by the Organization in accordance with the audit standard to verify compliance with and implementation of this Annex.
2. The Secretary-General of the Organization shall have responsibility for administering the Audit Scheme, based on the guidelines developed by the Organization.
3. Every Party shall have responsibility for facilitating the conduct of the audit and implementation of a programme of actions to address the findings, based on the guidelines developed by the Organization.
4. Audit of all Parties shall be:
 - (a) based on an overall schedule developed by the Secretary-General of the Organization, taking into account the guidelines developed by the Organization; and
 - (b) conducted at periodic intervals, taking into account the guidelines developed by the Organization.

Hoofstuk 5**Hawestaatbeheer****Regulasie 14***Hawestaatbeheer oor bedryfsvereistes*

1. 'n Skip wat in 'n hawe of buitelandse terminaal van 'n ander Party is, is onderhewig aan inspeksie deur beamptes wat behoorlik deur sodanige Party gemagtig is, met betrekking tot bedryfsvereistes kragtens hierdie Aanhangsel, waar daar duidelike gronde is om te glo dat die meester of bemanning nie vertrouwd is met noodsaaklike skeepsdekprosedures met betrekking tot die voorkoming van besoedeling deur riool nie.
2. In die omstandighede wat in paragraaf 1 van hierdie regulasie vermeld word, moet die Party die stappe doen wat sal verseker dat die skip nie vaar voordat die situasie onder beheer gebring is in ooreenstemming met die vereistes van hierdie Aanhangsel nie.
3. Prosedures met betrekking tot die hawestaatbeheer voorgeskryf in artikel 5 van hierdie Konvensie is op hierdie regulasie van toepassing.
4. Niks in hierdie regulasie moet uitgelê word dat dit die regte en verpligtinge van 'n Party wat beheer uitoefen oor bedryfsvereistes waarvoor spesifiek in hierdie Konvensie voorsiening gemaak word, beperk nie.

Hoofstuk 6**Verifiëring van nakoming van die bepalings van hierdie Aanhangsel****Regulasie 15***Toepassing*

1. Partye moet die bepalings van die “Kode vir Inwerkingstelling” gebruik in die nakoming van hulle verpligtinge in hierdie Aanhangsel vervat.

Regulasie 16*Verifiëring van nakoming*

1. Elke Party is onderhewig aan periodieke oudits deur die Organisasie ooreenkomstig die auditstandaard om voldoening aan en inwerkingstelling van hierdie Aanhangsel te verifieer.
2. Die Sekretaris-generaal van die Organisasie sal verantwoordelik wees vir die administrasie van die Ouditskema, gegrond op die riglyne wat deur die Organisasie ontwikkel is.
3. Elke Party sal verantwoordelik wees vir die vergemakliking van die uitvoering van die audit en implementering van 'n program van aksie om die bevindinge te hanteer, op grond van die riglyne wat deur die Organisasie ontwikkel is.
4. Oudit van alle partye moet:
 - (a) gegrond wees op 'n globale skedule wat deur die Sekretaris-generaal van die Organisasie ontwikkel is, met inagneming van die riglyne wat deur die Organisasie ontwikkel is; en
 - (b) met tussenposes uitgevoer word, met inagneming van die riglyne wat deur die Organisasie ontwikkel is.

Chapter 7**International Code for Ships Operating in Polar Waters****Regulation 17***Definitions*

For the purpose of this Annex,

1. *Polar Code* means the International Code for ships operating in polar waters, consisting of an introduction, part I-A and part II-A and parts I-B and II-B, as adopted by resolutions MSC.385(94) and MEPC.264(68), as may be amended, provided that:
 - (a) amendments to the environment-related provisions of the introduction and chapter 4 of part II-A of the Polar Code are adopted, brought into force and take effect in accordance with the provisions of article 16 of the present Convention concerning the amendment procedures applicable to an appendix to an annex; and
 - (b) amendments to part II-B of the Polar Code are adopted by the Marine Environment Protection Committee in accordance with its Rules of Procedure.
2. *Antarctic area* means the sea area south of latitude 60°S.
3. *Arctic waters* means those waters which are located north of a line from the latitude 58°00'0 N and longitude 042°00'0 W to latitude 64°37'0 N, longitude 035°27'0 W and thence by a rhumb line to latitude 67°03'9 N, longitude 026°33'4 W and thence by a rhumb line to the latitude 70°49'56 N and longitude 008°59'61 W (Sørkapp, Jan Mayen) and by the southern shore of Jan Mayen to 73°31'6 N and 019°01'0 E by the Island of Bjørnøya, and thence by a great circle line to the latitude 68°38'29 N and longitude 043°23'08 E (Cap Kanin Nos) and thence by the northern shore of the Asian Continent eastward to the Bering Strait and thence from the Bering Strait westward to latitude 60° N as far as Il'pyrskiy and following the 60th North parallel eastward as far as and including Etolin Strait and thence by the northern shore of the North American continent as far south as latitude 60° N and thence eastward along parallel of latitude 60° N, to longitude 056°37'1 W and thence to the latitude 58°00'0 N, longitude 042°00'0 W.
4. *Polar waters* means Arctic waters and/or the Antarctic area.

Regulation 18*Application and requirements*

1. This chapter applies to all ships certified in accordance with this Annex operating in polar waters.
2. Unless expressly provided otherwise, any ship covered by paragraph 1 of this regulation shall comply with the environment-related provisions of the introduction and with chapter 4 of part II-A of the Polar Code, in addition to any other applicable requirements of this Annex.

Appendix to Annex IV**Form of International Sewage Pollution Prevention Certificate****INTERNATIONAL SEWAGE POLLUTION PREVENTION CERTIFICATE**

Issued under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended, (hereinafter referred to as “the Convention”) under the authority of the Government of:

Hoofstuk 7**Internasionale Kode vir skepe wat in Poolwaters werksaam is****Regulasie 17***Woordomskrywings*

Vir die doeleindes van hierdie Aanhangsel, beteken,

1. *Poolkode* die Internasionale Kode vir skepe wat in poolwaters werk, bestaande uit 'n inleiding, deel I-A en deel II-A en dele I-B en II-B, soos aangeneem deur resolusies MSC.385(94) en MEPC.264(68), soos gewysig mag word, met dien verstande dat:
 - (a) wysigings aan die omgewingsverwante bepalings van die inleiding en hoofstuk 4 van deel II-A van die Poolkode aangeneem word, in werking gestel word en in werking tree ooreenkomstig die bepalings van artikel 16 van die huidige Konvensie aangaande die wysigingsprosedures van toepassing op 'n bylaag tot 'n aanhangsel; en
 - (b) wysigings aan deel II-B van die Poolkode word deur die Mariene Omgewingsbeskermingskomitee in ooreenstemming met sy Prosedurereëls aanvaar.
2. *Antarktiese gebied* die seegebied suid van lengtegraad 60°S.
3. *Arktiese waters* daardie waters wat noord van 'n lyn geleë is vanaf die breedtegraad 58°00'0 N en lengtegraad 042°00'0 W tot breedtegraad 64°37'0 N, lengtegraad 035°27'0 W en vandaar deur 'n loksodroom na breedtegraad 67°03'9 N, lengtegraad 026°33'4 W en vandaar met 'n loksodroom na die breedtegraad 70°49'56 N en lengtegraad 008°59'61 W (Sørkapp, Jan Mayen) en deur die suidelike kus van Jan Mayen tot 73°31'6 N en 019°01'0 O deur die Eiland Bjørnøya, en vandaar met 'n grootsirkellyn na die breedtegraad 68°38'29 N en lengtegraad 043°23'08 O (Cap Kanin Nos) en daarvandaan deur die noordelike oewer van die Asiatiese vasteland ooswaarts tot by die Beringstraat en vandaar vanaf die Beringstraat weswaarts tot breedtegraad 60° N tot by Il'pyrskiy en volg die 60ste noordelike breedtegraad ooswaarts tot by en insluitend Etolinstraat en vandaar deur die noordelike kus van die Noord-Amerikaanse vasteland so ver suid as breedtegraad 60° N en vandaar ooswaarts langs parallel van breedtegraad 60° N, tot lengtegraad 056°37'1 W en vandaar na die breedtegraad 58°00'0 N, lengtegraad 042°00'0 W.
4. *Poolwater* die Arktiese water en/of die Antarktiese gebied.

Regulasie 18*Toepassing en vereistes*

1. Hierdie hoofstuk is van toepassing op alle skepe wat ooreenkomstig hierdie Aanhangsel gesertifiseer is wat in poolwaters bedrywig is.
2. Tensy uitdruklik anders bepaal, moet enige skip wat deur paragraaf 1 van hierdie regulasie gedek word, voldoen aan die omgewingsverwante bepalings van die inleiding en aan hoofstuk 4 van deel II-A van die Poolkode, bykomend tot enige ander toepaslike vereistes van hierdie Aanhangsel.

Bylaag tot Aanhangsel IV**Vorm van Internasionale Rioolbesoedelingsvoorkomingcertifikaat****INTERNASIONALE RIOOLBESOEDELINGSVOORKOMINGSERTIFIKAAT**

Uitgereik ingevolge die bepalings van die Internasionale Konvensie ter Voorkoming van Besoedeling deur Skepe, 1973, soos gewysig deur die Protokol van 1978 wat daarop betrekking het, soos gewysig, (hierna “die Konvensie” genoem) onder die gesag van die regering van:

.....
.....
(full designation of the country)
by
.....
(full designation of the competent person or organization authorized under the provisions of the Convention)

Particulars of ship
Name of ship
Distinctive number or letters
Port of registry
Gross tonnage
Number of persons which the ship is certified to carry
IMO Number
New/existing ship
Date on which keel was laid or ship was at a similar stage of construction or, where applicable, date on which work for a conversion or an alteration or modification of a major character was commenced

THIS IS TO CERTIFY:

- 1That the ship is equipped with a sewage treatment plant/comminuter/holding tank and a discharge pipeline in compliance with regulations 9 and 10 of Annex IV of the Convention as follows:

1.1Description of the sewage treatment plant:

Type of sewage treatment plant
Name of manufacturer
The sewage treatment plant is certified by the Administration to meet the effluent standards as provided for in the *Guidelines on implementation of effluent standards and performance test for sewage treatment plants*, adopted by resolution MEPC.227(64), as amended, including/excluding the standards of section 4.2 thereof.

1.2Description of comminuter:

Type of comminuter
Name of manufacturer
Standard of sewage after disinfection

1.3Description of holding tank:

Total capacity of the holding tank m³
Location

1.4A pipeline for the discharge of sewage to a reception facility, fitted with a standard shore connection.

1.5That the ship has been surveyed in accordance with regulation 4 of Annex IV of the Convention.

1.6That the survey shows that the structure, equipment, systems, fittings, arrangements and material of the ship and the condition thereof are in all
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.....
.....
(volledige benaming van die land)

deur
.....
(volledige benaming van die bevoegde persoon of organisasie wat kragtens die
bepalings van die Konvensie gemagtig is)

Besonderhede van skip
Naam van skip
Kenmerkende nommer of letters
Registrasiehawe
Bruto tonnemaat
Aantal persone wat die skip gesertifiseer is om te vervoer
IMO-nommer
Nuwe/bestaande skip
Datum waarop kiel gelê is of skip in 'n soortgelyke stadium van konstruksie was of,
waar van toepassing, datum waarop met werk vir 'n ombouing of 'n verandering of
wysiging van 'n hoofkenmerk begin is

HIERBY WORD GESERTIFISEER:

- 1 Dat die skip toegerus is met 'n rioolsuiweringsaanleg/verwerker/riooltenk en 'n afvoerpypleiding in ooreenstemming met regulasies 9 en 10 van Aanhangsel IV van die Konvensie soos volg:

1.1 Beskrywing van die rioolsuiweringsaanleg:

Tipe rioolsuiweringsaanleg
Naam van vervaardiger

Die rioolsuiweringsaanleg word deur die Administrasie gesertifiseer om te voldoen aan die uitvloeiselstandaarde soos voorsien in die *Guidelines on implementation of effluent standards and performance test for sewage treatment plants*, aangeneem deur resolusie MEPC.227(64), soos gewysig, insluitend/uitgesluit die standaarde van afdeling 4.2 daarvan.

1.2 Beskrywing van opkerwer:

Tipe opkerwer
Naam van vervaardiger
Standaard van riool na ontsmetting

1.3 Beskrywing van riooltenk:

Totale kapasiteit van die riooltenk m³
Ligging

1.4 'n Pyleiding vir die afvoer van riool na 'n ontvangsfasiliteit, toegerus met 'n standaard oeweraansluiting.

1.5 Dat die skip opgemeet is in ooreenstemming met regulasie 4 van Aanhangsel IV van die Konvensie.

1.6 Dat die opname toon dat die struktuur, toerusting, stelsels, toebehore, reëlins en materiaal van die skip en die toestand daarvan in alle opsigte bevredigend

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respects satisfactory and that the ship complies with the applicable requirements of Annex IV of the Convention.

This Certificate is valid until (dd/mm/yyyy)
subject to surveys in accordance with regulation 4 of Annex IV of the Convention.

Completion date of the survey on which this Certificate is based
(dd/mm/yyyy)

Issued at
(place of issue of Certificate)

Date (dd/mm/yyyy)
(date of issue) (signature of duly authorized official
issuing the Certificate)

(seal or stamp of the authority, as appropriate)

ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID FOR LESS
THAN 5 YEARS WHERE REGULATION 8.3 APPLIES

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with regulation 8.3 of Annex IV of the Convention, be accepted as valid until (dd/mm/yyyy)

Signed
(signature of duly authorized official)

Place

Date (dd/mm/yyyy)

(seal or stamp of the authority, as appropriate)

ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN COM-
PLETED AND REGULATION 8.4 APPLIES

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with regulation 8.4 of Annex IV of the Convention, be accepted as valid until (dd/mm/yyyy)

Signed
(signature of duly authorized official)

Place

Date (dd/mm/yyyy)

(seal or stamp of the authority, as appropriate)

ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE
UNTIL REACHING THE PORT OF SURVEY OR FOR A PERIOD OF GRACE
WHERE REGULATION 8.5 OR 8.6 APPLIES

This Certificate shall, in accordance with regulation 8.5 or 8.6 of Annex IV of the Convention, be accepted as valid until (dd/mm/yyyy)

Signed
(signature of duly authorized official)

Place

Date (dd/mm/yyyy)

(seal or stamp of the authority, as appropriate)

is en dat die skip aan die toepaslike vereistes van Aanhangsel IV van die Konvensie voldoen.

Hierdie Sertifikaat is geldig tot (dd/mm/jjjj)
onderworpe aan opnames in ooreenstemming met regulasie 4 van Aanhangsel IV van die Konvensie.

Voltooingsdatum van die opname waarop hierdie Sertifikaat gebaseer is
(dd/mm/jjjj)

Uitgereik te
(plek van uitreiking van Sertifikaat)

Datum (dd/mm/jjjj)
(datum van uitreiking) (handtekening van behoorlik gemagtigde beampte wat die Sertifikaat uitreik)

(seël of stempel van die owerheid, soos gepas)

ENDOSSERING OM DIE SERTIFIKAAT TE VERLENG INDIEN GELDIG VIR MINDER AS 5 JAAR WAAR REGULASIE 8.3 VAN TOEPASSING IS

Die skip voldoen aan die toepaslike bepalings van die Konvensie, en hierdie Sertifikaat sal, ooreenkomstig regulasie 8.3 van Aanhangsel IV van die Konvensie, as geldig aanvaar word tot (dd/mm/jjjj)

Geteken
(handtekening van behoorlik gemagtigde beampte)

Plek

Datum (dd/mm/jjjj)

(seël of stempel van die owerheid, soos gepas)

ENDOSSERING WAAR DIE HERNUWINGSOPNAME AFGEHANDEL IS EN REGULASIE 8.4 VAN TOEPASSING IS

Die skip voldoen aan die toepaslike bepalings van die Konvensie, en hierdie Sertifikaat sal, ooreenkomstig regulasie 8.4 van Aanhangsel IV van die Konvensie, as geldig aanvaar word tot (dd/mm/jjjj)

Geteken.....
(handtekening van behoorlik gemagtigde beampte)

Plek

Datum (dd/mm/jjjj)

(seël of stempel van die owerheid, soos gepas)

ENDOSSERING OM DIE GELDIGHEID VAN DIE SERTIFIKAAT TE VERLENG TOTDAT DIE HAWE VAN OPNAME BEREIK WORD OF VIR 'N TYDPERK WAAR REGULASIE 8.5 OF 8.6 VAN TOEPASSING IS

Hierdie Sertifikaat sal, in ooreenstemming met regulasie 8.5 of 8.6 van Aanhangsel IV van die Konvensie, as geldig aanvaar word tot (dd/mm/jjjj)

Geteken
(handtekening van gepas gemagtigde beampte)

Plek

Datum (dd/mm/jjjj)

(seël of stempel van die owerheid, soos gepas)

Unified Interpretations of Annex IV

1. Definition of “a similar stage of construction”:

Reg. 1.1.1 “*A similar stage of construction*” means the stage at which—

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

Building contract date, keel-laying date and delivery date

Reg. 1.1.2.1 Under certain provisions of the SOLAS and MARPOL Conventions, the application of regulations to a ship is governed by the dates:

- (a) for which the building contract is placed on or after dd/mm/yyyy; or
- (b) in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after dd/mm/yyyy; or
- (c) the delivery of which is on or after dd/mm/yyyy.

1.1.2.2. For the application of such provisions, the date on which the building contract is placed for optional ships should be interpreted to be the date on which the original building contract to construct the series of ships is signed between the shipowner and the shipbuilder provided:

- (a) the option for construction of the optional ship(s) is ultimately exercised within the period of one year after the date of the original building contract for the series of ships; and
- (b) the optional ships are of the same design plans and constructed by the same shipbuilder as that for the series of ships.

2. The application of regulations governed as described in paragraph 1, above, is to be applied as follows:

- (a) if a building contract signing date occurs on or after the contract date specified for a particular set of regulation amendments, then, that set of regulation amendments applies;
- (b) only in the absence of a building contract does the keel laying date criteria apply and, if a ship’s keel laying date occurs on or after the keel laying date specified for a particular set of regulation amendments, then, that set of regulation amendments applies; and
- (c) regardless of the building contract signing date or keel laying date, if a ship’s delivery date occurs on or after the delivery date specified for a particular set of regulation amendments, then, that set of regulation amendments applies except in the case where the Administration has accepted that the delivery of the ships was delayed due to unforeseen circumstances beyond the control of the shipbuilder and the owner.

3. Installed on board a ship on or after 1 January 2010

Reg. 9.1.1. For application of resolution MEPC.159(55), the phrase “*installed on board a ship on or after 1 January 2010*” shall be interpreted as follows:

- (a) For new ships, installations on board ships the keels of which are laid or which are at a similar stage of construction on or after 1 January 2010.
- (b) For existing ships, new installations with a contractual delivery date to the ship on or after 1 January 2010 or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 1 January 2010.

9.1.2. Standard discharge connections

Reg. 10.1 All ships subject to Annex IV, irrespective of their size and of the presence of a sewage treatment plant or sewage holding tank, shall be provided with a pipeline and the relevant shore connection flange for discharging sewage to port sewage treatment facility.

Eenvormige vertolkings van Aanhangel IV

1. Omskrywing van “’n soortgelyke stadium van konstruksie”:

Reg. 1.1.1 “’n *Soortgelyke stadium van konstruksie*” die stadium waarop—

- (a) konstruksie wat met ’n spesifieke skip vereenselwig kan word, begin; en
- (b) die samestelling van daardie skip het begin wat ten minste 50 ton of een persent van die geskatte massa van alle struktuurmateriaal uitmaak, wat ook al die minste is.

Boukontrakdatum, kielleggingsdatum en afleweringdatum

Reg. 1.1.2.1 Kragtens sekere bepalings van die SOLAS- en MARPOL-konvensies, word die toepassing van regulasies op ’n skip beheer deur die datums:

- (a) waarvoor die boukontrak op of na dd/mm/jjjj geplaas word; of
- (b) in die afwesigheid van ’n boukontrak, waarvan die kiel gelê is of wat in ’n soortgelyke stadium van konstruksie is op of na dd/mm/jjjj; of
- (c) waarvan die aflewering op of na dd/mm/jjjj is.

1.1.2.2. Vir die toepassing van sodanige bepalings, moet die datum waarop die boukontrak vir opsionele skepe geplaas word, uitgelê word as die datum waarop die oorspronklike boukontrak om die reeks skepe te bou, tussen die skeepseienaar en die skeepsbouer onderteken is, met dien verstande dat:

- (a) die opsie vir konstruksie van die opsionele skip/skepe uiteindelik uitgeoefen word binne die tydperk van een jaar na die datum van die oorspronklike boukontrak vir die reeks skepe; en
- (b) die opsionele skepe van dieselfde ontwerpplanne is en deur dieselfde skeepsbouer gebou is as dié vir die reeks skepe.

2. Regulasies wat beheer word soos beskryf in paragraaf 1, hierbo, moet soos volg toegepas word:

- (a) indien ’n ondertekeningsdatum van ’n boukontrak val op of na die kontrakdatum gespesifiseer vir ’n bepaalde stel regulasiewysigings, is daardie stel regulasiewysigings van toepassing;
- (b) die kielleggingsdatummaatstawwe is slegs van toepassing in die afwesigheid van ’n boukontrak en, indien ’n skip se kielleggingsdatum val op of na die kielleggingsdatum wat vir ’n bepaalde stel regulasiewysigings gespesifiseer is, is daardie stel regulasiewysigings van toepassing; en
- (c) ongeag die boukontraktekendatum of kielleggingsdatum, indien ’n skip se afleweringdatum plaasvind op of na die afleweringdatum wat gespesifiseer is vir ’n bepaalde stel regulasiewysigings, is daardie stel regulasiewysigings van toepassing, behalwe indien die Administrasie aanvaar dat die aflewering van die skepe verdrag is as gevolg van onvoorsiene omstandighede buite die beheer van die skeepsbouer en die eienaar.

3. Geïnstalleer aan boord van ’n skip op of na 1 Januarie 2010

Reg. 9.1.1 Vir die toepassing van resolusie MEPC.159(55), moet die frase “*aan boord van ’n skip geïnstalleer op of na 1 Januarie 2010*” soos volg geïnterpreteer word:

- (a) Vir nuwe skepe, installasies aan boord van skepe waarvan die kiele gelê is of wat op of na 1 Januarie 2010 in ’n soortgelyke stadium van konstruksie is.
- (b) Vir bestaande skepe, nuwe installasies met ’n kontraktuele afleweringdatum aan die skip op of na 1 Januarie 2010 of, in die afwesigheid van ’n kontraktuele afleweringdatum, die werklike aflewering van die toerusting aan die skip op of na 1 Januarie 2010.

9.1.2. Standaard afvoerverbindings

Reg. 10.1 Alle skepe wat aan Aanhangel IV onderhewig is, ongeag hul grootte en die teenwoordigheid van ’n rioolsuiweringsaanleg of rioolhoutenk, moet voorsien word van ’n pypleiding en die betrokke oewerverbindingsflens vir die afvoer van riool na ’n hawe se rioolsuiweringsfasiliteit.

**PROTOCOL OF 1997 TO AMEND THE INTERNATIONAL CONVENTION
FOR THE PREVENTION OF POLLUTION FROM SHIPS, 1973, AS MODI-
FIED BY THE PROTOCOL OF 1978 RELATING THERETO**

THE PARTIES TO THE PRESENT PROTOCOL,

BEING Parties to the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973;

RECOGNIZING the need to prevent and control air pollution from ships;

RECOGNIZING Principle 15 of the Rio Declaration on Environment and Development which calls for the application of a precautionary approach;

CONSIDERING that this objective could best be achieved by the conclusion of a Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto;

HAVE AGREED as follows:—

ARTICLE 1

INSTRUMENT TO BE AMENDED

1. The instrument which the present Protocol amends is the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as the “Convention”).

ARTICLE 2

ADDITION OF ANNEX VI TO THE CONVENTION

2. Annex VI entitled Regulations for the Prevention of Air Pollution from Ships, the text of which is set out in the Annex to the present Protocol, is added.

ARTICLE 3

GENERAL OBLIGATIONS

3. (1) The Convention and the present Protocol shall, as between the Parties to the present Protocol, be read and interpreted together as one single instrument.

(2) Every reference to the present Protocol constitutes at the same time a reference to the Annex hereto.

ARTICLE 4

AMENDMENT PROCEDURE

4. In applying Article 16 of the Convention to an amendment to Annex VI and its appendices, the reference to “a Party to the Convention” shall be deemed to mean the reference to a Party bound by that Annex.

FINAL CLAUSES

ARTICLE 5

SIGNATURE, RATIFICATION, ACCEPTANCE, APPROVAL AND ACCESSION

5. (1) The present Protocol shall be open for signature at the Headquarters of the International Maritime Organization (hereinafter referred to as the “Organization”) from 1 January 1998 until 31 December 1998 and shall thereafter remain open for accession. Only Contracting States to the Protocol of 1978 relating to the International

PROTOKOL VAN 1997 TOT WYSIGING VAN INTERNASIONALE KONVENSIE TER VOORKOMING VAN BESOEDELING DEUR SKEPE, 1973, SOOS GEWYSIG DEUR DIE PROTOKOL VAN 1978 WAT DAARMEE VERBAND HOU

DIE PARTYE TOT DIE HUIDIGE PROTOKOL,

NAAMLIK Partye tot die Protokol van 1978 met betrekking tot die Internasionale Konvensie ter Voorkoming van Besoedeling deur Skepe, 1973;

IN ERKENNING VAN die behoefte om lugbesoedeling van skepe te voorkom en te beheer;

IN ERKENNING VAN Beginsel 15 van die Rio-verklaring oor omgewing en ontwikkeling wat aandrang op die toepassing van 'n voorsorgbenadering;

NADEMAAL hierdie doelwit die beste bereik kan word deur die sluiting van 'n Protokol van 1997 om die Internasionale Konvensie vir die Voorkoming van Besoedeling deur Skepe, 1973, soos gewysig deur die Protokol van 1978 wat daarmee verband hou, te wysig;

HET soos volg ooreengestem:—

ARTIKEL 1

INSTRUMENT WAT GEWYSIG GAAN WORD

1. Die instrument wat die huidige Protokol wysig is die Internasionale Konvensie ter Voorkoming van Besoedeling deur Skepe, 1973, soos gewysig deur die Protokol van 1978 wat daarmee verband hou (hierna na verwys as die “Konvensie”).

ARTIKEL 2

BYVOEGING VAN AANHANGSEL VI TOT DIE KONVENSIE

2. Aanhangsel VI getiteld Regulasies ter Voorkoming van Lugbesoedeling deur Skepe, waarvan die teks in die Aanhangsel tot hierdie Protokol uiteengesit word, word bygevoeg.

ARTIKEL 3

ALGEMENE VERPLIGTINGE

3. (1) Die Konvensie en hierdie Protokol moet, soos tussen die Partye by hierdie Protokol, as een enkele instrument saam gelees en uitgelê word.

(2) Elke verwysing na hierdie Protokol maak terselfdertyd 'n verwysing na die Aanhangsel hierby uit.

ARTIKEL 4

WYSIGINGSPROSEDURE

4. By die toepassing van Artikel 16 van die Konvensie op 'n wysiging van Aanhangsel VI en die bylaes daarby, word die verwysing na “'n Party by die Konvensie” geag die verwysing na 'n Party wat deur daardie Aanhangsel gebind is, te beteken.

FINALE KLOUSULES

ARTIKEL 5

ONDERTEKENING, BEKRAGTIGING, AANVAARDING, GOEDKEURING EN TOETREDE

5. (1) Hierdie Protokol sal oop wees vir ondertekening by die Hoofkwartier van die Internasionale Maritieme Organisasie (hierna die “Organisasie” genoem), vanaf 1 Januarie 1998 tot 31 Desember 1998 en moet daarna oop bly vir toetrede. Slegs Kontrakterende State by die Protokol van 1978 met betrekking tot die Internasionale

Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) may become Parties to the present Protocol by:

- (a) signature without reservation as to ratification, acceptance or approval; or
- (b) signature, subject to ratification, acceptance or approval, followed by ratification, acceptance or approval; or
- (c) accession.

(2) Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument to that effect with the Secretary-General of the Organization (hereinafter referred to as the “Secretary-General”).

ARTICLE 6

ENTRY INTO FORCE

6. (1) The present Protocol shall enter into force twelve months after the date on which not less than fifteen States, the combined merchant fleets of which constitute not less than 50 percent of the gross tonnage of the world’s merchant shipping, have become Parties to it in accordance with Article 5 of the present Protocol.

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

(3) After the date on which an amendment to the present Protocol is deemed to have been accepted in accordance with Article 16 of the Convention, any instrument of ratification, acceptance, approval or accession deposited shall apply to the present Protocol as amended.

ARTICLE 7

DENUNCIATION

7. (1) The present Protocol may be denounced by any Party to the present Protocol at any time after the expiry of five years from the date on which the Protocol enters into force for that Party.

(2) Denunciation shall be effected by the deposit of an instrument of denunciation with the Secretary-General.

(3) A denunciation shall take effect twelve months after receipt of the notification by the Secretary-General or after the expiry of any other longer period which may be indicated in the notification.

(4) A denunciation of the 1978 Protocol in accordance with Article VII thereof shall be deemed to include a denunciation of the present Protocol in accordance with this Article. Such denunciation shall take effect on the date on which denunciation of the 1978 Protocol takes effect in accordance with Article VII of that Protocol.

ARTICLE 8

DEPOSITARY

8. (1) The present Protocol shall be deposited with the Secretary-General (hereinafter referred to as the “Depositary”).

(2) The Depositary shall—

- (a) inform all States which have signed the present Protocol or acceded thereto of—
 - (i) each new signature or deposit of an instrument of ratification, acceptance, approval or accession, together with the date thereof;
 - (ii) the date of entry into force of the present Protocol; and
 - (iii) the deposit of any instrument of denunciation of the present Protocol, together with the date on which it was received and the date on which the denunciation takes effect; and (b) transmit certified true copies of the present Protocol to all States which have signed the present Protocol or acceded thereto.
- (b) . . .

(3) As soon as the present Protocol enters into force, a certified true copy thereof shall

Konvensie vir die Voorkoming van Besoedeling deur Skepe, 1973 (hierna die “1978-protokol” genoem), kan Partye by hierdie Protokol word deur:

- (a) ondertekening sonder voorbehoud ten opsigte van bekragtiging, aanvaarding of goedkeuring; of
- (b) ondertekening, onderhewig aan bekragtiging, aanvaarding of goedkeuring, gevolg deur bekragtiging, aanvaarding of goedkeuring; of
- (c) toetrede.

(2) Bekragtiging, aanvaarding, goedkeuring of toetrede sal bewerkstellig word deur die deponering van ’n instrument te dien effekte by die Sekretaris-generaal van die Organisasie (hierna die “Sekretaris-generaal” genoem).

ARTIKEL 6

INWERKINGTREDING

6. (1) Hierdie Protokol tree in werking twaalf maande na die datum waarop nie minder nie as vyftien State, waarvan die gekombineerde handelsvlote nie minder nie as 50 persent van die bruto tonnemaat van die wêreld se handelskeepvaart uitmaak, Partye daartoe geword het ooreenkomstig Artikel 5 van hierdie Protokol.

(2) Enige instrument van bekragtiging, aanvaarding, goedkeuring of toetrede wat na die datum waarop hierdie Protokol in werking tree, in bewaring gegee word, sal drie maande na die datum van inhandiging in werking tree.

(3) Na die datum waarop ’n wysiging van hierdie Protokol geag word aanvaar te wees in ooreenstemming met Artikel 16 van die Konvensie, is enige instrument van bekragtiging, aanvaarding, goedkeuring of toetreding wat in bewaring gegee is, van toepassing op hierdie Protokol soos gewysig.

ARTIKEL 7

OPSEGGING

7. (1) Die huidige Protokol kan te eniger tyd na die verstryking van vyf jaar vanaf die datum waarop die Protokol vir daardie Party in werking tree, deur enige Party by die huidige Protokol opgesê word.

(2) Opsegging sal bewerkstellig word deur die inhandiging van ’n instrument van opsegging by die Sekretaris-generaal.

(3) ’n Opsegging tree in werking twaalf maande na ontvangs van die kennisgewing deur die Sekretaris-generaal of na die verstryking van enige ander langer tydperk wat in die kennisgewing aangedui mag word.

(4) ’n Opsegging van die 1978-protokol ooreenkomstig Artikel VII daarvan, word geag ’n opsegging van die huidige Protokol ooreenkomstig hierdie Artikel in te sluit. Sodanige opsegging tree in werking op die datum waarop die opsegging van die 1978-protokol in werking tree ooreenkomstig Artikel VII van daardie protokol.

ARTIKEL 8

BEWAARPLEK

8. (1) Die huidige Protokol moet by die Sekretaris-generaal (hierna die “Bewaarder” genoem), in bewaring gegee word.

(2) Die Bewaarder moet—

- (a) alle State wat die huidige Protokol onderteken het of daartoe toegetree het, in kennis stel van—
 - (i) elke nuwe handtekening of inhandiging van ’n instrument van bekragtiging, aanvaarding, goedkeuring of toetrede, tesame met die datum daarvan;
 - (ii) die datum van inwerkingtreding van die huidige Protokol; en
 - (iii) die deponering van enige instrument van opsegging van hierdie Protokol, tesame met die datum waarop dit ontvang is en die datum waarop die opsegging in werking tree; en (b) gewaarmerkte afskrifte van hierdie Protokol aan alle State wat die huidige Protokol onderteken het of daartoe toegetree het, stuur.
- (b) . . .

(3) Sodra hierdie Protokol in werking tree, sal ’n gewaarmerkte ware afskrif daarvan deur die Bewaarder aan die Sekretariaat van die Verenigde Nasies gestuur word vir

be transmitted by the Depositary to the Secretariat of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

ARTICLE 9

LANGUAGES

9. The present Protocol is established in a single copy in the Arabic, Chinese, English, French, Russian and Spanish languages, each text being equally authentic.

IN WITNESS WHEREOF the undersigned, being duly authorized by their respective Governments for that purpose, have signed the present Protocol.

DONE at London this twenty-sixth day of September, one thousand nine hundred and ninety seven.

Annex VI

Regulations for the Prevention of Air Pollution from Ships

Chapter 1

General

Regulation 1

Application

- 1. The provisions of this Annex shall apply to all ships, except where expressly provided otherwise in regulations 3, 5, 6, 13, 15, 16, 18, 19, 20, 21 and 22 of this Annex.

Regulation 2

Definitions

For the purpose of this Annex:

- 1. *Annex* means Annex VI to the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL), as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), and as modified by the Protocol of 1997, as amended by the Organization, provided that such amendments are adopted and brought into force in accordance with the provisions of article 16 of the present Convention.
- 2. *A similar stage of construction* means the stage at which:
 - (a) construction identifiable with a specific ship begins; and
 - (b) assembly of that ship has commenced comprising at least 50 tonnes or one per cent of the estimated mass of all structural material, whichever is less.
- 3. *Anniversary date* means the day and the month of each year that will correspond to the date of expiry of the International Air Pollution Prevention Certificate.
- 4. *Auxiliary control device* means a system, function or control strategy installed on a marine diesel engine that is used to protect the engine and/or its ancillary equipment against operating conditions that could result in damage or failure, or that is used to facilitate the starting of the engine. An auxiliary control device may also be a strategy or measure that has been satisfactorily demonstrated not to be a defeat device.
- 5. *Continuous feeding* is defined as the process whereby waste is fed into a combustion chamber without human assistance while the incinerator is in normal operating conditions with the combustion chamber operative temperature between 850°C and 1,200°C.
- 6. *Defeat device* means a device that measures, senses or responds to operating variables (e.g., engine speed, temperature, intake pressure or any other parameter) for the purpose of activating, modulating, delaying or deactivating the operation of

registrasie en publikasie in ooreenstemming met Artikel 102 van die Handves van die Verenigde Nasies.

ARTIKEL 9

TALE

9. Die huidige Protokol word in 'n enkele kopie in die Arabiese, Chinese, Engelse, Franse, Russiese en Spaanse tale opgestel, elke teks is ewe oorspronklik.

TEN BEWYSE WAARVAN die ondergetekende, behoorlik gemagtig deur hul onderskeie regerings vir daardie doel, die huidige Protokol onderteken het.

GEDOEN TE Londen op hierdie ses-en-twintigste dag van September, eenduisend nege honderd sewe-en-negentig.

Aanhangsel VI

Regulasies ter Voorkoming van Lugbesoedeling deur Skepe

Hoofstuk 1

Algemeen

Regulasie 1

Toepassing

1. Die bepalings van hierdie Aanhangsel is van toepassing op alle skepe, behalwe waar uitdruklik anders bepaal in regulasies 3, 5, 6, 13, 15, 16, 18, 19, 20, 21 en 22 van hierdie Aanhangsel.

Regulasie 2

Woordomskrywings

Vir die doel van hierdie Aanhangsel, beteken:

1. *Aanhangsel*, Aanhangsel VI tot die Internasionale Konvensie vir die Voorkoming van Besoedeling deur Skepe, 1973 (MARPOL), soos gewysig deur die Protokol van 1978 wat daarop betrekking het (MARPOL 73/78), en soos gewysig deur die Protokol van 1997, soos gewysig deur die Organisasie, met dien verstande dat sodanige wysigings aangeneem en in werking gestel word ooreenkomstig die bepalings van artikel 16 van hierdie Konvensie.
2. 'n *Soortgelyke stadium van konstruksie* die stadium waarop:
 - (a) konstruksie wat met 'n spesifieke skip vereenselwig kan word, begin; en
 - (b) die montering van daardie skip begin het, wat ten minste 50 ton of een persent van die geskatte massa van alle strukturele materiaal uitmaak, wat ook al die minste is.
3. *Jaardatum* die dag en die maand van elke jaar wat sal ooreenstem met die vervaldatum van die Internasionale Lugbesoedelingsvoorkomingsertifikaat.
4. *Hulpbeheertoestel* 'n stelsel, funksie of beheerstrategie geïnstalleer op 'n mariene dieselenjin wat gebruik word om die enjin en/of die bykomende toerusting daarvan te beskerm teen bedryfstoestande wat beskadiging of onklaarraking tot gevolg kan hê, of wat gebruik word om die aanskakel van die enjin te vergemaklik. 'n Hulpbeheertoestel kan ook 'n strategie of maatreël wees wat bevredigend gedemonstreer is dat dit nie 'n verydelingstoestel is nie.
5. *Deurlopende voer* die proses waardeur afval sonder menslike hulp in 'n verbrandingskamer ingevoer word terwyl die verbrandingsoond in normale bedryfstoestande is, met die verbrandingskamer werkstemperatuur tussen 850°C en 1,200°C.
6. *Verydelingstoestel* 'n toestel wat bedryfsveranderlikes meet, waarneem of daarop reageer (bv. enjinspoed, temperatuur, inlaatdruk of enige ander parameter) met die doel om die werking van enige komponent of die funksie van die

any component or the function of the emission control system such that the effectiveness of the emission control system is reduced under conditions encountered during normal operation, unless the use of such a device is substantially included in the applied emission certification test procedures.

- 7. *Emission* means any release of substances, subject to control by this Annex, from ships into the atmosphere or sea.
- 8. *Emission control area* means an area where the adoption of special mandatory measures for emissions from ships is required to prevent, reduce and control air pollution from NO_x or SO_x and particulate matter or all three types of emissions and their attendant adverse impacts on human health and the environment. Emission control areas shall include those listed in, or designated under, regulations 13 and 14 of this Annex.
- 9. *Fuel oil* means any fuel delivered to and intended for combustion purposes for propulsion or operation on board a ship, including gas, distillate and residual fuels.
- 10. *Gross tonnage* means the gross tonnage calculated in accordance with the tonnage measurement regulations contained in Annex I to the International Convention on Tonnage Measurements of Ships, 1969, or any successor Convention.
- 11. *Installations* in relation to regulation 12 of this Annex means the installation of systems, equipment, including portable fire-extinguishing units, insulation, or other material on a ship, but excludes the repair or recharge of previously installed systems, equipment, insulation or other material, or the recharge of portable fire-extinguishing units.
- 12. *Installed* means a marine diesel engine that is or is intended to be fitted on a ship, including a portable auxiliary marine diesel engine, only if its fuelling, cooling or exhaust system is an integral part of the ship. A fuelling system is considered integral to the ship only if it is permanently affixed to the ship. This definition includes a marine diesel engine that is used to supplement or augment the installed power capacity of the ship and is intended to be an integral part of the ship.
- 13. *Irrational emission control strategy* means any strategy or measure that, when the ship is operated under normal conditions of use, reduces the effectiveness of an emission control system to a level below that expected on the applicable emission test procedures.
- 14. *Marine diesel engine* means any reciprocating internal combustion engine operating on liquid or dual fuel, to which regulation 13 of this Annex applies, including booster/compound systems if applied. In addition, a gas fuelled engine installed on a ship constructed on or after 1 March 2016 or a gas fuelled additional or non-identical replacement engine installed on or after that date is also considered as a marine diesel engine.
- 15. *NO_x Technical Code* means the Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines adopted by resolution 2 of the 1997 MARPOL Conference, as amended by the Organization, provided that such amendments are adopted and brought into force in accordance with the provisions of article 16 of the present Convention.
- 16. *Ozone-depleting substances* means controlled substances defined in paragraph (4) of article 1 of the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, listed in Annexes A, B, C or E to the said Protocol in force at the time of application or interpretation of this Annex. Ozone-depleting substances that may be found on board ship include, but are not limited to:
 - Halon 1211 Bromochlorodifluoromethane
 - Halon 1301 Bromotrifluoromethane

emissiebeheerstelsel te aktiveer, moduleer, vertraag of deaktiveer sodat die doeltreffendheid van die emissiebeheerstelsel verminder word onder toestande wat tydens normale bedryf ondervind word, tensy die gebruik van so 'n toestel wesenlik by die toegepaste emissiesertifiseringstoetsprosedures ingesluit is.

7. *Emissie* enige vrystelling van stowwe, onderhewig aan beheer deur hierdie Aanhangsel, vanaf skepe in die atmosfeer of see.
8. *Emissiebeheergebied* 'n gebied waar die aanneming van spesiale verpligte maatreëls vir emissies van skepe vereis word om lugbesoedeling van NO_x of SO_x en deeltjies of al drie tipes emissies te voorkom, te verminder en te beheer en hul gepaardgaande nadelige impak op menslike gesondheid en die omgewing. Emissiebeheergebiede sal dié insluit wat gelys is in, of aangewys is onder regulasies 13 en 14 van hierdie Aanhangsel.
9. *Brandolie* enige brandstof wat gelewer word aan en bedoel is vir verbrandingsdoeleindes vir aandrywing of bedryf aan boord van 'n skip, insluitend gas, distillaat en oorblywende brandstof.
10. *Bruto tonnemaat* die bruto tonnemaat bereken in ooreenstemming met die tonnemaatmetingsregulasies vervat in Aanhangsel I tot die Internasionale Konvensie oor Tonnemaatmetings van Skepe, 1969, of enige opvolgende Konvensie.
11. *Installasies* met betrekking tot regulasie 12 van hierdie Aanhangsel, die installering van stelsels, toerusting, met inbegrip van draagbare brandbluseenhede, insulering of ander materiaal op 'n skip, maar sluit die herstel of herlaai van voorheen geïnstalleerde stelsels, toerusting, insulering of ander materiaal, of die herlaai van draagbare brandbluseenhede, uit.
12. *Geïnstalleer* 'n mariene dieselenjin wat op 'n skip aangebring is of bedoel is om op 'n skip aangebring te word, met inbegrip van 'n draagbare hulp- mariene dieselenjin, slegs indien sy brandstof-, verkoeling- of uitlaatstelsel 'n integrale deel van die skip is. 'n Brandstofstelsel word slegs as integraal van die skip beskou as dit permanent aan die skip vas is. Hierdie definisie sluit 'n mariene dieselenjin in wat gebruik word om die geïnstalleerde kragkapasiteit van die skip aan te vul of te vergroot en bedoel is om 'n integrale deel van die skip te wees.
13. *Irrasionele emissiebeheerstrategie* enige strategie of maatreël wat, wanneer die skip onder normale gebruikstoestande bedryf word, die doeltreffendheid van 'n emissiebeheerstelsel verminder tot 'n vlak laer as wat verwag word op die toepaslike emissietoetsprosedures.
14. *Mariene dieselenjin* enige wederkerende binnebrandenjin wat op vloeibare of dubbele brandstof werk, waarop regulasie 13 van hierdie aanhangsel van toepassing is, met inbegrip van booster/saamgestelde stelsels indien toegepas. Daarbenewens word 'n gasaangedrewe enjin geïnstalleer op 'n skip wat op of na 1 Maart 2016 gebou is of 'n gasaangedrewe addisionele of nie-identiese vervangingsenjin wat op of na daardie datum geïnstalleer is, ook as 'n mariene dieselenjin beskou.
15. *NO_x Tegniese Kode* die Tegniese Kode oor die Beheer van die vrystelling van stikstofoksiede van mariene dieselenjins aangeneem deur resolusie 2 van die 1997 MARPOL-konferensie, soos gewysig deur die Organisasie, met dien verstande dat sodanige wysigings aangeneem en in werking gestel word ooreenkomstig die bepalings van artikel 16 van die huidige Konvensie.
16. *Osoonafbrekende stowwe* beheerde stowwe omskryf in paragraaf (4) van artikel 1 van die Montreal-protokol oor stowwe wat die osoonlaag afbreek, 1987, gelys in Bylaes A, B, C of E tot die genoemde Protokol wat ten tyde van toepassing of interpretasie van hierdie aanhangsel van krag is. Osoonafbrekende stowwe wat gevind kan word aan boord van die skip sluit in, maar is nie beperk tot:

- Halon 1211 Broomchloordifluormetaan
- Halon 1301 Broomtrifluormetaan

- Halon 2402 1,2-Dibromo-1,1,2,2-tetraflouroethane (also known as Halon 114B2)
- CFC-11 Trichlorofluoromethane
- CFC-12 Dichlorodifluoromethane
- CFC-113 1,1,2-Trichloro-1,2,2-trifluoroethane
- CFC-114 1,2-Dichloro-1,1,2,2-tetrafluoroethane
- CFC-115 Chloropentafluoroethane

17. *Shipboard incineration* means the incineration of wastes or other matter on board a ship, if such wastes or other matter were generated during the normal operation of that ship.
18. *Shipboard incinerator* means a shipboard facility designed for the primary purpose of incineration.
19. *Ships constructed* means ships the keels of which are laid or that are at a similar stage of construction.
20. *Sludge oil* means sludge from the fuel oil or lubricating oil separators, waste lubricating oil from main or auxiliary machinery, or waste oil from bilge water separators, oil filtering equipment or drip trays.
21. *Tanker* in relation to regulation 15 of this Annex means an oil tanker as defined in regulation 1 of Annex I of the present Convention or a chemical tanker as defined in regulation 1 of Annex II of the present Convention.

For the purpose of chapter 4:

22. *Existing ship* means a ship which is not a new ship.
23. *New ship* means a ship:
- (a) for which the building contract is placed on or after 1 January 2013; or
 - (b) in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2013; or
 - (c) the delivery of which is on or after 1 July 2015.
24. *Major Conversion* means in relation to chapter 4 of this Annex a conversion of a ship:
- (a) which substantially alters the dimensions, carrying capacity or engine power of the ship; or
 - (b) which changes the type of the ship; or
 - (c) the intent of which in the opinion of the Administration is substantially to prolong the life of the ship; or
 - (d) which otherwise so alters the ship that, if it were a new ship, it would become subject to relevant provisions of the present Convention not applicable to it as an existing ship; or
 - (e) which substantially alters the energy efficiency of the ship and includes any modifications that could cause the ship to exceed the applicable required EEDI as set out in regulation 21 of this Annex.
25. *Bulk carrier* means a ship which is intended primarily to carry dry cargo in bulk, including such types as ore carriers as defined in regulation 1 of chapter XII of SOLAS 74 (as amended), but excluding combination carriers.
26. *Gas carrier* in relation to chapter 4 of this Annex means a cargo ship, other than an LNG carrier as defined in paragraph 38 of this regulation, constructed or adapted and used for the carriage in bulk of any liquefied gas.
27. *Tanker* in relation to chapter 4 of this Annex means an oil tanker as defined in

- Halon 2402 1,2 Dibroom-1,1,2,2-tetraflouroetaan (ook bekend as Halon 114B2)
 - CFC-11 Trichloorfluormetaan
 - CFC-12 Dichlorodifluorometaan
 - CFC-113 1,1,2-Trichloor-1,2,2-trifluoroetaan
 - CFC-114 1,2-Dichloro-1,1,2,2-tetrafluoroetaan
 - CFC-115 Chloorpentafluoretaan
17. *Verbranding aan boord* die verbranding van afval of ander materiaal aan boord van 'n skip, indien sodanige afval of ander materiaal tydens die normale werking van daardie skip gegenereer is.
18. *Aanboordverbrandingsoond* 'n aanboordfasiliteit wat ontwerp is vir die primêre doel van verbranding.
19. *Skepe gebou* skepe waarvan die kiele gelê is of wat in 'n soortgelyke stadium van konstruksie is.
20. *Slykolie* slyk uit die brandstof- of smeerolieskeiers, afvalsmeerolie van hoof- of hulpmasjinerie, of afvalolie van ruimwaterskeiers, oliefiltreertoerusting of drupbakke.
21. *Tenkskip* met betrekking tot regulasie 15 van hierdie Aanhangsel, 'n olietenkskip soos omskryf in regulasie 1 van Aanhangsel I van hierdie Konvensie of 'n chemiese tenkskip soos omskryf in regulasie 1 van Aanhangsel II van hierdie Konvensie.
- Vir die doel van hoofstuk 4 beteken:
22. *Bestaande skip* 'n skip wat nie 'n nuwe skip is nie.
23. *Nuwe skip* 'n skip:
- (a) waarvoor die boukontrak op of na 1 Januarie 2013 geplaas is; of
 - (b) in die afwesigheid van 'n boukontrak, waarvan die kiel gelê is of wat in 'n soortgelyke stadium van konstruksie op of na 1 Julie 2013 is; of
 - (c) waarvan die aflewering op of na 1 Julie 2015 is.
24. *Groot ombouing* met betrekking tot hoofstuk 4 van hierdie Aanhangsel 'n ombouing van 'n skip:
- (a) wat die afmetings, drakrag of enjinkrag van die skip wesenlik verander; of
 - (b) wat die tipe skip verander; of
 - (c) waarvan die bedoeling na die mening van die Administrasie is om die lewe van die skip wesenlik te verleng; of
 - (d) wat die skip andersins so verander dat, indien dit 'n nuwe skip was, dit onderworpe sou word aan toepaslike bepalings van hierdie Konvensie wat nie daarop van toepassing is as 'n bestaande skip nie; of
 - (e) wat die energiedoeltreffendheid van die skip wesenlik verander en enige wysigings insluit wat kan veroorsaak dat die skip die toepaslike vereiste EDOI oorskry soos uiteengesit in regulasie 21 van hierdie Aanhangsel.
25. *Grootmaatvragskip* 'n skip wat hoofsaaklik bedoel is om droë vrag in grootmaat te vervoer, met inbegrip van sulke tipes soos ertsdraers soos omskryf in regulasie 1 van hoofstuk XII van SOLAS 74 (soos gewysig), maar uitgesluit kombinasie-draers.
26. *Gasdraer*, met betrekking tot hoofstuk 4 van hierdie Aanhangsel, 'n vragskip, anders as 'n VAG-draer soos omskryf in paragraaf 38 van hierdie regulasie, gebou of aangepas en gebruik vir die vervoer in grootmaat van enige vloeibare gas.
27. *Tenkskip*, met betrekking tot hoofstuk 4 van hierdie Aanhangsel, 'n olietenkskip soos omskryf in regulasie 1 van Aanhangsel I van die huidige Konvensie of 'n

regulation 1 of Annex I of the present Convention or a chemical tanker or an NLS tanker as defined in regulation 1 of Annex II of the present Convention.

28. *Containership* means a ship designed exclusively for the carriage of containers in holds and on deck.
29. *General cargo ship* means a ship with a multi-deck or single deck hull designed primarily for the carriage of general cargo. This definition excludes specialized dry cargo ships, which are not included in the calculation of reference lines for general cargo ships, namely livestock carrier, barge carrier, heavy load carrier, yacht carrier, nuclear fuel carrier.
30. *Refrigerated cargo carrier* means a ship designed exclusively for the carriage of refrigerated cargoes in holds.
31. *Combination carrier* means a ship designed to load 100% deadweight with both liquid and dry cargo in bulk.
32. *Passenger ship* means a ship which carries more than 12 passengers.
33. *Ro-ro cargo ship (vehicle carrier)* means a multi deck roll-on-roll-off cargo ship designed for the carriage of empty cars and trucks.
34. *Ro-ro cargo ship* means a ship designed for the carriage of roll-on-roll-off cargo transportation units.
35. *Ro-ro passenger ship* means a passenger ship with roll-on-roll-off cargo spaces.
36. *Attained EEDI* is the EEDI value achieved by an individual ship in accordance with regulation 20 of this Annex.
37. *Required EEDI* is the maximum value of attained EEDI that is allowed by regulation 21 of this Annex for the specific ship type and size.
38. *LNG carrier* in relation to chapter 4 of this Annex means a cargo ship constructed or adapted and used for the carriage in bulk of liquefied natural gas (LNG).
39. *Cruise passenger ship* in relation to chapter 4 of this Annex means a passenger ship not having a cargo deck, designed exclusively for commercial transportation of passengers in overnight accommodations on a sea voyage.
40. *Conventional propulsion* in relation to chapter 4 of this Annex means a method of propulsion where a main reciprocating internal combustion engine(s) is the prime mover and coupled to a propulsion shaft either directly or through a gear box.
41. *Non-conventional propulsion* in relation to chapter 4 of this Annex means a method of propulsion, other than conventional propulsion, including diesel-electric propulsion, turbine propulsion, and hybrid propulsion systems.
42. *Polar Code* means the International Code for Ships Operating in Polar Waters, consisting of an introduction, parts I-A and II-A and parts I-B and II-B, adopted by resolutions MSC.385(94) and MEPC.264(68), as may be amended, provided that—
 - (a) amendments to the environment-related provisions of the introduction and chapter 1 of part II-A of the Polar Code are adopted, brought into force and take effect in accordance with the provisions of article 16 of the present Convention concerning the amendment procedures applicable to an appendix to an annex; and
 - (b) amendments to part II-B of the Polar Code are adopted by the Marine Environment Protection Committee in accordance with its Rules of Procedure.
43. A ship *delivered on or after* 1 September 2019 means a ship:
 - (a) for which the building contract is placed on or after 1 September 2015; or

- chemiese tenkskip of 'n NLS-tenkskip soos omskryf in regulasie 1 van Aanhangsel II van hierdie Konvensie.
28. *Houerskip* 'n skip wat uitsluitlik ontwerp is vir die vervoer van houers in ruim en op dek.
29. *Algemene vragskip* 'n skip met 'n meerdek- of enkeldekromp wat hoofsaaklik ontwerp is vir die vervoer van algemene vrag. Hierdie omskrywing sluit gespesialiseerde droëvragsepe uit, wat nie by die berekening van verwysingslyne vir algemene vragsepe ingesluit is nie, naamlik veedraer, barkdraer, swaarvragdraer, seiljagdraer, kernbrandstofdraer.
30. *Verkoelde vragdraer* 'n skip wat uitsluitlik ontwerp is vir die vervoer van verkoelde vragte in sy ruim.
31. *Kombinasiedraer* 'n skip wat ontwerp is om 100% dooie gewig te laai met beide vloeibare en droë vrag in grootmaat.
32. *Passasierskip* 'n skip wat meer as 12 passasiers vervoer.
33. *Ro-ra-vragskip (voertuigdraer)* 'n meerdekkige rol-op-rol-af-vragskip wat ontwerp is vir die vervoer van leë motors en vragmotors.
34. *Ro-ra-vragskip* 'n skip wat ontwerp is vir die vervoer van rol-op-rol-af vragvervoereenhede.
35. *Ro-ra-passasierskip* 'n passasierskip met rol-op-rol-af-vragruimtes.
36. *Bereikte EDOI* is die EDOI-waarde wat deur 'n individuele skip behaal is in ooreenstemming met regulasie 20 van hierdie Aanhangsel.
37. *Vereiste EDOI* is die maksimum waarde van bereikte EDOI wat toegelaat word deur regulasie 21 van hierdie Aanhangsel vir die spesifieke skiptipe en -grootte.
38. *VAG-draer* met betrekking tot hoofstuk 4 van hierdie Aanhangsel, 'n vragskip wat gebou of aangepas is en gebruik word vir die vervoer in grootmaat van vloeibare aardgas (VAG).
39. *Plesierboot* met betrekking tot hoofstuk 4 van hierdie Aanhangsel, 'n passasierskip wat nie 'n vragdek het nie, uitsluitlik ontwerp vir kommersiële vervoer van passasiers in oornagverblyf op 'n seereis.
40. *Konvensionele aandrywing* met betrekking tot hoofstuk 4 van hierdie Aanhangsel, 'n metode van aandrywing waar 'n hoof-wederkerige-binnebrandenj(n)s die aandrywer is en gekoppel is aan 'n dryfas hetsy direk of deur 'n ratkas.
41. *Nie-konvensionele aandrywing* met betrekking tot hoofstuk 4 van hierdie Aanhangsel, 'n metode van aandrywing, anders as konvensionele aandrywing, met inbegrip van diesel-elektriese aandrywing, turbine-aandrywing en hibriede aandrywingstelsels.
42. *Poolkode* die Internasionale Kode vir Skepe wat in Poolwaters werk, wat bestaan uit 'n inleiding, dele I-A en II-A en dele I-B en II-B, aangeneem deur resolusies MSC.385(94) en MEPC.264(68), soos gewysig mag word, met dien verstande dat—
- (a) wysigings aan die omgewingsverwante bepalings van die inleiding en hoofstuk 1 van deel II-A van die Poolkode word aangeneem, in werking gestel en tree in werking ooreenkomstig die bepalings van artikel 16 van hierdie Konvensie aangaande die wysigingsprosedures van toepassing op 'n bylaag tot 'n aanhangsel; en
- (b) wysigings aan deel II-B van die Poolkode word deur die Komitee vir Beskerming van die Mariene Omgewing aangeneem ooreenkomstig sy Prosesreëls.
43. 'n Skip wat op of na 1 September 2019 afgelewer word, beteken 'n skip:
- (a) waarvoor die boukontrak op of na 1 September 2015 geplaas word; of

- (b) in the absence of a building contract, the keel of which is laid, or which is at a similar stage of construction, on or after 1 March 2016; or
- (c) the delivery of which is on or after 1 September 2019.

For the purposes of this Annex:

- 44. *Audit* means a systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled.
- 45. *Audit Scheme* means the IMO Member State Audit Scheme established by the Organization and taking into account the guidelines developed by the Organization.
- 46. *Code for Implementation* means the IMO Instruments Implementation Code (III Code) adopted by the Organization by resolution A.1070 (28).
- 47. *Audit Standard* means the Code for Implementation.
- 48. *Calendar year* means the period from 1 January until 31 December inclusive.
- 49. *Company* means the owner of the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the owner of the ship and who on assuming such responsibility has agreed to take over all the duties and responsibilities imposed by the *International Management Code for the Safe Operation of Ships and for Pollution Prevention*, as amended.
- 50. *Distance travelled* means distance travelled over ground.
- 51. *Electronic Record Book* means a device or system, approved by the Administration, used to electronically record the required entries for discharges, transfers and other operations as required under this Annex in lieu of a hard copy record book.

Regulation 3

Exceptions and exemptions

General

- 1. Regulations of this Annex shall not apply to—
 - (a) any emission necessary for the purpose of securing the safety of a ship or saving life at sea; or
 - (b) any emission resulting from damage to a ship or its equipment—
 - (i) provided that all reasonable precautions have been taken after the occurrence of the damage or discovery of the emission for the purpose of preventing or minimizing the emission; and
 - (ii) except if the owner or the master acted either with intent to cause damage, or recklessly and with knowledge that damage would probably result.

Trials for ship emission reduction and control technology research

- 2. The Administration of a Party may, in co-operation with other Administrations as appropriate, issue an exemption from specific provisions of this Annex for a ship to conduct trials for the development of ship emission reduction and control technologies and engine design programmes. Such an exemption shall only be provided if the applications of specific provisions of the Annex or the revised NO_x Technical Code 2008 could impede research into the development of such technologies or programmes. A permit issued under this regulation shall not exempt a ship from the reporting requirement under regulation 22A and shall not alter the type and scope of data required to be reported under regulation 22A. A permit for such an exemption shall only be provided to the minimum number of ships necessary and be subject to the following provisions—

- (b) in die afwesigheid van 'n boukontrak, waarvan die kiel gelê is, of wat in 'n soortgelyke stadium van konstruksie is, op of na 1 Maart 2016; of
- (c) waarvan die aflewering op of na 1 September 2019 is.

Vir die doeleindes van hierdie Aanhangsel, beteken:

- 44. *Oudit* 'n sistematiese, onafhanklike en gedokumenteerde proses om auditbewyse te verkry en dit objektief te evalueer om te bepaal in watter mate aan auditkriteria voldoen word.
- 45. *Ouditskema* die IMO-lidstaat-ouditskema wat deur die Organisasie ingestel is en met inagneming van die riglyne wat deur die Organisasie ontwikkel is.
- 46. *Kode vir Inwerkingstelling* die IMO Instruments Implementeringskode (III Kode) wat by resolusie A.1070 (28) deur die Organisasie aangeneem is.
- 47. *Ouditstandaard* die Kode vir Inwerkingstelling.
- 48. *Kalenderjaar* die tydperk vanaf 1 Januarie tot en met 31 Desember.
- 49. *Maatskappy* die eienaar van die skip of enige ander organisasie of persoon soos die bestuurder, of die blote skeepsverhuurder, wat die verantwoordelikheid vir die bedryf van die skip van die eienaar van die skip opgeneem het en wat by die opname van sodanige verantwoordelikheid ingestem het om al die pligte en verantwoordelikhede oor te neem wat deur die Internasionale Bestuurskode vir die veilige bedryf van skepe en vir die voorkoming van besoedeling, soos gewysig, opgelê word.
- 50. *Afstand afgelê* afstand oor land afgelê.
- 51. *Elektroniese Rekordboek* 'n toestel of stelsel, deur die Administrasie goedgekeur, wat gebruik word om die vereiste inskrywings vir ontladings, oordragte en ander bedrywighede soos vereis kragtens hierdie Aanhangsel, in plaas van in 'n hardekopie-rekordboek, elektronies aan te teken.

Regulasie 3

Uitsonderings en vrystellings

Algemeen

- 1. Regulasies van hierdie Aanhangsel is nie van toepassing nie op—
 - (a) enige emissie wat nodig is vir die doel om die veiligheid van 'n skip te verseker of lewens op see te red; of
 - (b) enige emissie as gevolg van skade aan 'n skip of sy toerusting—
 - (i) met dien verstande dat alle redelike voorsorgmaatreëls getref is na die voorkoms van die skade of ontdekking van die emissie met die doel om die emissie te voorkom of te minimaliseer; en
 - (ii) behalwe as die eienaar of die meester opgetree het, óf met die doel om skade te veroorsaak, óf roekeloos en met die wete dat skade waarskynlik sou ontstaan.

Proewe vir skeeps-emissievermindering en beheertegnologieënnavorsing

- 2. Die Administrasie van 'n Party kan, in samewerking met ander Administrasies soos toepaslik, 'n vrystelling van spesifieke bepalings van hierdie Aanhangsel uitreik vir 'n skip om proewe uit te voer vir die ontwikkeling van skeeps-emissievermindering- en beheertegnologieë en enjinontwerpprogramme. So 'n vrystelling sal slegs verskaf word indien die toepassings van spesifieke bepalings van die Aanhangsel of die hersiene NO_x Tegnieë Kode 2008 navorsing oor die ontwikkeling van sulke tegnologieë of programme kan belemmer. 'n Permit wat kragtens hierdie regulasie uitgereik is, sal nie 'n skip vrystel van die aanmeldingsvereiste kragtens regulasie 22A nie en sal nie die tipe en omvang van data verander wat vereis word om ingevolge regulasie 22A aangemeld te word nie. 'n Permit vir so 'n vrystelling moet slegs verskaf word aan die minimum aantal skepe wat nodig is en is onderhewig aan die volgende bepalings—

- (a) for marine diesel engines with a per cylinder displacement up to 30 litres, the duration of the sea trial shall not exceed 18 months. If additional time is required, a permitting Administration or Administrations may permit a renewal for one additional 18-month period; or
- (b) for marine diesel engines with a per cylinder displacement at or above 30 litres, the duration of the ship trial shall not exceed 5 years and shall require a progress review by the permitting Administration or Administrations at each intermediate survey. A permit may be withdrawn based on this review if the testing has not adhered to the conditions of the permit or if it is determined that the technology or programme is not likely to produce effective results in the reduction and control of ship emissions. If the reviewing Administration or Administrations determine that additional time is required to conduct a test of a particular technology or programme, a permit may be renewed for an additional time period not to exceed five years.

Emissions from sea-bed mineral activities

- 3.1 Emissions directly arising from the exploration, exploitation and associated offshore processing of sea-bed mineral resources are, consistent with article 2(3)(b)(ii) of the present Convention, exempt from the provisions of this Annex. Such emissions include the following:
- (a) emissions resulting from the incineration of substances that are solely and directly the result of exploration, exploitation and associated offshore processing of sea-bed mineral resources, including but not limited to the flaring of hydrocarbons and the burning of cuttings, muds, and/or stimulation fluids during well completion and testing operations, and flaring arising from upset conditions;
 - (b) the release of gases and volatile compounds entrained in drilling fluids and cuttings;
 - (c) emissions associated solely and directly with the treatment, handling or storage of sea-bed minerals; and
 - (d) emissions from marine diesel engines that are solely dedicated to the exploration, exploitation and associated offshore processing of sea-bed mineral resources.
- 3.2 The requirements of regulation 18 of this Annex shall not apply to the use of hydrocarbons that are produced and subsequently used on site as fuel, when approved by the Administration.

Regulation 4

Equivalents

- 1 The Administration of a Party may allow any fitting, material, appliance or apparatus to be fitted in a ship or other procedures, alternative fuel oils, or compliance methods used as an alternative to that required by this Annex if such fitting, material, appliance or apparatus or other procedures, alternative fuel oils, or compliance methods are at least as effective in terms of emissions reductions as that required by this Annex, including any of the standards set forth in regulations 13 and 14.
2. The Administration of a Party that allows a fitting, material, appliance or apparatus or other procedures, alternative fuel oils, or compliance methods used as an alternative to that required by this Annex shall communicate to the Organization for circulation to the Parties particulars thereof, for their information and appropriate action, if any.
3. The Administration of a Party should take into account any relevant guidelines developed by the Organization pertaining to the equivalents provided for in this regulation.
4. The Administration of a Party that allows the use of an equivalent as set forth in paragraph 1 of this regulation shall endeavour not to impair or damage its environment, human health, property or resources or those of other States.

- (a) vir mariene dieselenjins met 'n per silinder verplasing tot 30 liter, sal die duur van die seeproef nie 18 maande oorskry nie. Indien addisionele tyd benodig word, kan 'n Administrasie of Administrasies wat dit toelaat, 'n hernuwing vir een addisionele tydperk van 18 maande; of
- (b) vir mariene dieselenjins met 'n per silinder verplasing van, of meer as, 30 liter, sal die duur van die skeepsproef nie 5 jaar oorskry nie en sal 'n vorderingsoorsig deur die toelaatbare Administrasie of Administrasies by elke tussentydse opname vereis. 'n Permit kan op grond van hierdie hersiening teruggetrek word indien die toetsing nie aan die voorwaardes van die permit voldoen het nie of as daar bepaal word dat die tegnologie of program waarskynlik nie effektiewe resultate sal lewer in die vermindering en beheer van skeeps-emissies nie. As die hersienende Administrasie of Administrasies bepaal dat meer tyd nodig is om 'n bepaalde tegnologie of program te toets, kan 'n permit hernu word vir 'n bykomende tydperk van hoogstens vyf jaar.

Emissies van seabodemmineraalaktiwiteite

- 3.1 Emissies wat direk voortspruit uit die eksplorاسie, ontginning en gepaardgaande afluandige verwerking van seabodemmineraalbronne is, in ooreenstemming met artikel 2(3)(b)(ii) van hierdie Konvensie, vrygestel van die bepalings van hierdie Aanhangsel. Sulke emissies sluit die volgende in:
 - (a) emissies wat voortspruit uit die verbranding van stowwe wat uitsluitlik en direk die gevolg is van eksplorاسie, ontginning en gepaardgaande buitelandse verwerking van seabodemmineraalbronne, insluitend maar nie beperk nie tot die opvlam van koolwaterstowwe en die verbranding van snysels, modder, en/of stimulasievloeistowwe tydens putvoltooing en toetsoperasies, en opvlam wat voortspruit uit ontstelde toestande;
 - (b) die vrystelling van gasse en vlugtige verbindings wat in boorvloeistowwe en -snysels meegesleur word;
 - (c) emissies wat uitsluitlik en direk met die behandeling, hantering of berging van seabodemminerale verband hou; en
 - (d) emissies van mariene dieselenjins wat uitsluitlik toegewy is aan die eksplorاسie, ontginning en gepaardgaande buitelandse verwerking van seabodemmineraalbronne.
- 3.2 Die vereistes van regulasie 18 van hierdie Aanhangsel is nie van toepassing op die gebruik van koolwaterstowwe wat geproduseer word en daarna op die terrein as brandstof gebruik word, wanneer dit deur die Administrasie goedgekeur word nie.

Regulasie 4

Ekwivalente

- 1. Die Administrasie van 'n Party kan toelaat dat enige toerusting, materiaal, toestel of apparaat in 'n skip aangebring word of ander prosedures, alternatiewe brandolies, of voldoeningsmetodes wat gebruik word as 'n alternatief vir dié wat deur hierdie Aanhangsel vereis word indien sodanige toerusting, materiaal, toestel of apparaat of ander prosedures, alternatiewe brandolies, of voldoeningsmetodes ten minste so doeltreffend is ten opsigte van emissievermindering as wat deur hierdie aanhangsel vereis word, met inbegrip van enige van die standarde uiteengesit in regulasies 13 en 14.
- 2. Die Administrasie van 'n Party wat toebehore, materiaal, toestel of apparaat toelaat of ander prosedures, alternatiewe brandolies, of voldoeningsmetodes toelaat wat gebruik word as 'n alternatief vir dié wat deur hierdie Aanhangsel vereis word, moet besonderhede daarvan aan die Organisasie oordra vir sirkulasie aan die Partye, vir hul inligting en toepaslike optrede, indien enige.
- 3. Die Administrasie van 'n Party moet enige relevante riglyne wat deur die Organisasie ontwikkel is, in ag neem met betrekking tot die ekwivalente waarvoor in hierdie regulasie voorsiening gemaak word.
- 4. Die Administrasie van 'n Party wat die gebruik toelaat van 'n ekwivalent soos uiteengesit in paragraaf 1 van hierdie regulasie, moet streef om nie hul omgewing, menslike gesondheid, eiendom of hulpbronne of dié van ander State te belemmer of te beskadig nie.

*Chapter 2**Survey, certification and means of control***Regulation 5***Surveys*

1. Every ship of 400 gross tonnage and above and every fixed and floating drilling rig and other platforms shall, to ensure compliance with the requirements of chapter 3 of this Annex, be subject to the surveys specified below:
 - (a) An initial survey before the ship is put into service or before the certificate required under regulation 6 of this Annex is issued for the first time. This survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of chapter 3 of this Annex;
 - (b) A renewal survey at intervals specified by the Administration, but not exceeding five years, except where regulation 9.2, 9.5, 9.6 or 9.7 of this Annex is applicable. The renewal survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with applicable requirements of chapter 3 of this Annex;
 - (c) An intermediate survey within three months before or after the second anniversary date or within three months before or after the third anniversary date of the certificate which shall take the place of one of the annual surveys specified in paragraph 1.4 of this regulation. The intermediate survey shall be such as to ensure that the equipment and arrangements fully comply with the applicable requirements of chapter 3 of this Annex and are in good working order. Such intermediate surveys shall be endorsed on the IAPP Certificate issued under regulation 6 or 7 of this Annex;
 - (d) An annual survey within three months before or after each anniversary date of the certificate, including a general inspection of the equipment, systems, fittings, arrangements and material referred to in paragraph 1.1 of this regulation to ensure that they have been maintained in accordance with paragraph 5 of this regulation and that they remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the IAPP Certificate issued under regulation 6 or 7 of this Annex; and
 - (e) An additional survey either general or partial, according to the circumstances, shall be made whenever any important repairs or renewals are made as prescribed in paragraph 5 of this regulation or after a repair resulting from investigations prescribed in paragraph 6 of this regulation. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of chapter 3 of this Annex.
2. In the case of ships of less than 400 gross tonnage, the Administration may establish appropriate measures in order to ensure that the applicable provisions of chapter 3 of this Annex are complied with.
3. Surveys of ships as regards the enforcement of the provisions of this Annex shall be carried out by officers of the Administration:
 - (a) The Administration may, however, entrust the surveys either to surveyors nominated for the purpose or to organizations recognized by it. Such organizations shall comply with the guidelines adopted by the Organization;
 - (b) The survey of marine diesel engines and equipment for compliance with regulation 13 of this Annex shall be conducted in accordance with the revised NO_x Technical Code 2008;
 - (c) When a nominated surveyor or recognized organization determines that the condition of the equipment does not correspond substantially with the particulars of the certificate, it shall ensure that corrective action is taken and shall in due course notify the Administration. If such corrective action is not

Hoofstuk 2**Opname, sertifisering en wyse van beheer****Regulasie 5***Opnames*

1. Elke skip van 400 bruto tonnemaat en meer en elke vaste en drywende boortuig en ander platforms moet, om voldoening aan die vereistes van hoofstuk 3 van hierdie Aanhangsel te verseker, onderhewig wees aan die opnames hieronder gespesifiseer:
 - (a) 'n Aanvanklike opname voordat die skip in gebruik geneem word of voordat die sertifikaat wat kragtens regulasie 6 van hierdie Aanhangsel vereis word, vir die eerste keer uitgereik word. Hierdie opname moet so wees om te verseker dat die toerusting, stelsels, toebehore, reëlins en materiaal ten volle aan die toepaslike vereistes van hoofstuk 3 van hierdie Aanhangsel voldoen;
 - (b) 'n Hernuwingsopname met tussenposes deur die Administrasie gespesifiseer, maar nie meer as vyf jaar nie, behalwe waar regulasie 9.2, 9.5, 9.6 of 9.7 van hierdie Aanhangsel van toepassing is. Die hernuwingsopname moet so wees om te verseker dat die toerusting, stelsels, toebehore, reëlins en materiaal ten volle aan toepaslike vereistes van hoofstuk 3 van hierdie Aanhangsel voldoen;
 - (c) 'n Tussentydse opname binne drie maande voor of na die tweede jaardatum of binne drie maande voor of na die derde jaardatum van die sertifikaat wat die plek sal neem van een van die jaarlikse opnames gespesifiseer in paragraaf 1.4 van hierdie regulasie. Die tussenopname moet so wees om te verseker dat die toerusting en reëlins ten volle aan die toepaslike vereistes van hoofstuk 3 van hierdie Aanhangsel voldoen en in 'n goeie werkende toestand is. Sodanige tussenopnames moet geëndosseer word op die ILBV-sertifikaat uitgereik kragtens regulasie 6 of 7 van hierdie Aanhangsel;
 - (d) 'n Jaarlikse opname binne drie maande voor of na elke jaardatum van die sertifikaat, met inbegrip van 'n algemene inspeksie van die toerusting, stelsels, toebehore, reëlins en materiaal waarna in paragraaf 1.1 van hierdie regulasie verwys word om te verseker dat dit in stand gehou is ooreenkomstig paragraaf 5 van hierdie regulasie en dat hulle bevredigend bly vir die diens waarvoor die skip bedoel is. Sodanige jaarlikse opnames sal geëndosseer word op die ILBV-sertifikaat uitgereik kragtens regulasie 6 of 7 van hierdie Aanhangsel; en
 - (e) 'n Bykomende opname, hetsy algemeen of gedeeltelik, volgens die omstandighede, moet gemaak word wanneer enige belangrike herstelwerk of hernuwings gemaak word soos voorgeskryf in paragraaf 5 van hierdie regulasie of na 'n herstel wat voortspruit uit ondersoeke voorgeskryf in paragraaf 6 van hierdie regulasie. Die opname moet sodanig wees dat dit verseker dat die nodige herstelwerk of hernuwings effektief gemaak is, dat die materiaal en vakmanskap van sodanige herstelwerk of hernuwings in alle opsigte bevredigend is en dat die skip in alle opsigte aan die vereistes van hoofstuk 3 van hierdie Aanhangsel voldoen.
2. In die geval van skepe van minder as 400 bruto tonnemaat, kan die Administrasie toepaslike maatreëls instel om te verseker dat die toepaslike bepalings van hoofstuk 3 van hierdie Aanhangsel nagekom word.
3. Opnames van skepe met betrekking tot die afdwinging van die bepalings van hierdie Aanhangsel, moet deur beamptes van die Administrasie uitgevoer word:
 - (a) Die Administrasie kan die opnames egter toevertrou aan opnemers wat vir die doel genomineer is of aan organisasies wat deur die Administrasie erken word. Sodanige organisasies moet voldoen aan die riglyne wat deur die Organisasie aanvaar is;
 - (b) Die opname van mariene dieselenjins en toerusting vir voldoening aan regulasie 13 van hierdie Aanhangsel moet uitgevoer word in ooreenstemming met die hersiene NO_x Tegniese Kode 2008;
 - (c) Wanneer 'n genomineerde opnemer of erkende organisasie vasstel dat die toestand van die toerusting nie wesenlik met die besonderhede van die sertifikaat ooreenstem nie, moet hy of sy verseker dat regstellende stappe geneem word en moet die Administrasie te geleger tydstip in kennis stel. Indien

taken, the certificate shall be withdrawn by the Administration. If the ship is in a port of another Party, the appropriate authorities of the port State shall also be notified immediately. When an officer of the Administration, a nominated surveyor or recognized organization has notified the appropriate authorities of the port State, the Government of the port State concerned shall give such officer, surveyor or organization any necessary assistance to carry out their obligations under this regulation; and

- (e) In every case, the Administration concerned shall fully guarantee the completeness and efficiency of the survey and shall undertake to ensure the necessary arrangements to satisfy this obligation.
4. Ships to which chapter 4 of this Annex applies shall also be subject to the surveys specified below, taking into account the guidelines adopted by the Organization:
- (a) An initial survey before a new ship is put in service and before the International Energy Efficiency Certificate is issued. The survey shall verify that the ship's attained EEDI is in accordance with the requirements in chapter 4 of this Annex, and that the SEEMP required by regulation 22 of this Annex is on board;
 - (b) A general or partial survey, according to the circumstances, after a major conversion of a new ship to which this regulation applies. The survey shall ensure that the attained EEDI is recalculated as necessary and meets the requirement of regulation 21 of this Annex, with the reduction factor applicable to the ship type and size of the converted ship in the phase corresponding to the date of contract or keel laying or delivery determined for the original ship in accordance with regulation 2.23 of this Annex;
 - (c) In cases where the major conversion of a new or existing ship is so extensive that the ship is regarded by the Administration as a newly constructed ship, the Administration shall determine the necessity of an initial survey on attained EEDI. Such a survey, if determined necessary, shall ensure that the attained EEDI is calculated and meets the requirement of regulation 21 of this Annex, with the reduction factor applicable corresponding to the ship type and size of the converted ship at the date of the contract of the conversion, or in the absence of a contract, the commencement date of the conversion. The survey shall also verify that the SEEMP required by regulation 22 of this Annex is on board and for a ship to which regulation 22A applies, has been revised appropriately to reflect a major conversion in those cases where the major conversion affects data collection methodology and/or reporting processes;
 - (d) For existing ships, the verification of the requirement to have a SEEMP on board according to regulation 22 of this Annex shall take place at the first intermediate or renewal survey identified in paragraph 1 of this regulation, whichever is the first, on or after 1 January 2013; and
 - (e) The Administration shall ensure that for each ship to which regulation 22A applies, the SEEMP complies with regulation 22.2 of this Annex. This shall be done prior to collecting data under regulation 22A of this Annex in order to ensure the methodology and processes are in place prior to the beginning of the ship's first reporting period. Confirmation of compliance shall be provided to and retained on board the ship.
5. The equipment shall be maintained to conform with the provisions of this Annex and no changes shall be made in the equipment, systems, fittings, arrangements or material covered by the survey, without the express approval of

- sodanige regstellende stappe nie gedoen word nie, moet die sertifikaat deur die Administrasie teruggetrek word. Indien die skip in 'n hawe van 'n ander Party is, sal die toepaslike owerhede van die hawestaat ook onmiddellik in kennis gestel word. Wanneer 'n beampte van die Administrasie, 'n genomineerde opnemer of erkende organisasie die toepaslike owerhede van die hawestaat in kennis gestel het, moet die regering van die betrokke hawestaat sodanige beampte, opnemer of organisasie enige nodige bystand verleen om hul verpligtinge kragtens hierdie regulasie na te kom; en
- (e) In elke geval moet die betrokke Administrasie die volledigheid en doeltreffendheid van die opname ten volle waarborg en moet onderneem om die nodige reëlins te verseker om hierdie verpligting na te kom.
4. Skepe waarop hoofstuk 4 van hierdie Aanhangsel van toepassing is, is ook onderworpe aan die opnames hieronder gespesifiseer, met inagneming van die riglyne wat deur die Organisasie aanvaar is:
- (a) 'n Aanvanklike opname voordat 'n nuwe skip in gebruik geneem word en voor die Internasionale Energiedoeltreffendheidsertifikaat uitgereik word. Die opname sal verifieer dat die skip se bereikte EDOI in ooreenstemming is met die vereistes in hoofstuk 4 van hierdie aanhangsel, en dat die BSED wat deur regulasie 22 van hierdie Aanhangsel vereis word, aan boord is;
- (b) 'n Algemene of gedeeltelike opname, na gelang van die omstandighede, na 'n groot ombouing van 'n nuwe skip waarop hierdie regulasie van toepassing is. Die opname sal verseker dat die bereikte EDOI herbereken word soos nodig en voldoen aan die vereiste van regulasie 21 van hierdie Aanhangsel, met die reduksiefaktor van toepassing op die skiptipe en grootte van die omgeboude skip in die fase wat ooreenstem met die datum van kontrak of kiellegging of aflewering bepaal vir die oorspronklike skip in ooreenstemming met regulasie 2.23 van hierdie Aanhangsel;
- (c) In gevalle waar die groot ombouing van 'n nuwe of bestaande skip so omvangryk is dat die skip deur die Administrasie as 'n nuutgeboude skip beskou word, moet die Administrasie die noodsaaklikheid van 'n aanvanklike opname van bereikte EDOI bepaal. So 'n opname, indien bepaal is dat dit nodig is, moet verseker dat die bereikte EDOI bereken word en voldoen aan die vereiste van regulasie 21 van hierdie Aanhangsel, met die verlagingsfaktor van toepassing wat ooreenstem met die skiptipe en grootte van die omgeboude skip op die datum van die kontrak van die ombouing, of in die afwesigheid van 'n kontrak, die aanvangsdatum van die ombouing. Die opname sal ook verifieer dat die BSED wat deur regulasie 22 van hierdie Aanhangsel vereis word, aan boord is en vir 'n skip waarop regulasie 22A van toepassing is, toepaslik hersien is om 'n groot ombouing te weerspieël in daardie gevalle waar die groot ombouing data-insamelingsmetodologie en/of verslagdoeningsprosesse raak;
- (d) Vir bestaande skepe moet die verifikasie van die vereiste om 'n BSED aan boord te hê ooreenkomstig regulasie 22 van hierdie Aanhangsel plaasvind by die eerste tussen- of hernuwingsopname wat in paragraaf 1 van hierdie regulasie geïdentifiseer is, wat ook al die eerste is, op of na 1 Januarie 2013; en
- (e) Die Administrasie moet verseker dat vir elke skip waarop regulasie 22A van toepassing is, die BSED aan regulasie 22.2 van hierdie Aanhangsel voldoen. Dit moet gedoen word voordat data ingevolge regulasie 22A van hierdie aanhangsel ingesamel word om te verseker dat die metodologie en prosesse in plek is voor die skip se eerste verslagdoeningstydperk begin. Bevestiging van voldoening moet aan die skip verskaf en aan boord van die skip gehou word.
5. Die toerusting moet in stand gehou word om aan die bepalings van hierdie Aanhangsel te voldoen en geen veranderinge mag aangebring word aan die toerusting, stelsels, toebehore, reëlins of materiaal wat deur die opname gedek word, sonder die uitdruklike goedkeuring van die Administrasie nie. Die direkte vervanging van sodanige toerusting en toebehore met toerusting en toebehore wat aan die bepalings van hierdie Aanhangsel voldoen, word toegelaat.
6. Wanneer 'n skip in 'n ongeluk is of 'n fout ontdek word wat die doeltreffendheid of volledigheid van die skip se toerusting wat deur hierdie Aanhangsel gedek word, wesenlik beïnvloed, moet die meester of eienaar van die skip die ongeluk so gou

the Administration. The direct replacement of such equipment and fittings with equipment and fittings that conform with the provisions of this Annex is permitted.

6. Whenever an accident occurs to a ship or a defect is discovered that substantially affects the efficiency or completeness of its equipment covered by this Annex, the master or owner of the ship shall report at the earliest opportunity to the Administration, a nominated surveyor or recognized organization responsible for issuing the relevant certificate.

Regulation 6

Issue or endorsement of Certificates and Statements of Compliance related to fuel oil consumption reporting

International Air Pollution Prevention Certificate

1. An International Air Pollution Prevention Certificate shall be issued, after an initial or renewal survey in accordance with the provisions of regulation 5 of this Annex, to:
 - (a) any ship of 400 gross tonnage and above engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties; and
 - (b) platforms and drilling rigs engaged in voyages to waters under the sovereignty or jurisdiction of other Parties.
2. A ship constructed before the date this Annex enters into force for that particular ship's Administration, shall be issued with an International Air Pollution Prevention Certificate in accordance with paragraph 1 of this regulation no later than the first scheduled dry-docking after the date of such entry into force, but in no case later than three years after this date.
3. Such certificate shall be issued or endorsed either by the Administration or by any person or organization duly authorized by it. In every case, the Administration assumes full responsibility for the certificate.

International Energy Efficiency Certificate

4. An International Energy Efficiency Certificate for the ship shall be issued after a survey in accordance with the provisions of regulation 5.4 of this Annex to any ship of 400 gross tonnage and above before that ship may engage in voyages to ports or offshore terminals under the jurisdiction of other Parties.
5. The certificate shall be issued or endorsed either by the Administration or any organization duly authorized by it. In every case, the Administration assumes full responsibility for the certificate.

Statement of Compliance —Fuel Oil Consumption Reporting

6. Upon receipt of reported data pursuant to regulation 22A.3 of this Annex, the Administration or any organization duly authorized by it* shall determine whether the data has been reported in accordance with regulation 22A of this Annex and, if so, issue a Statement of Compliance related to fuel oil consumption to the ship no later than five months from the beginning of the calendar year. In every case, the Administration assumes full responsibility for this Statement of Compliance.
7. Upon receipt of reported data pursuant to regulations 22A.4, 22A.5 or 22A.6 of this Annex, the Administration or any organization duly authorized by it shall promptly determine whether the data has been reported in accordance with regulation 22A and, if so, issue a Statement of Compliance related to fuel oil consumption to the ship at that time. In every case, the Administration assumes full responsibility for this Statement of Compliance.

Regulation 7

Issue of a Certificate by another Party

1. A Party may, at the request of the Administration, cause a ship to be surveyed and, if satisfied that the applicable provisions of this Annex are complied with, shall

moontlik rapporteer aan die Administrasie, 'n genomineerde opnemer of erkende organisasie wat verantwoordelik is vir die uitreiking van die betrokke sertifikaat.

Regulasie 6

Uitreiking of endossering van sertifikate en verklarings van voldoening wat verband hou met verslagdoening oor brandolieverbruik

Internasionale Lugbesoedelingsvoorkomingsertifikaat

1. 'n Internasionale Lugbesoedelingsvoorkomingsertifikaat moet uitgereik word, na 'n aanvanklike of hernuwingsopname ooreenkomstig die bepalings van regulasie 5 van hierdie Aanhangsel, aan:
 - (a) enige skip met 'n 400 bruto tonnemaat en meer wat vaar na hawens of afluiddige terminale onder die jurisdiksie van ander Partye; en
 - (b) platforms en boortorings wat vaar deur water onder die soewereiniteit of jurisdiksie van ander Partye.
2. 'n Internasionale Lugbesoedelingsvoorkomingsertifikaat moet ooreenkomstig paragraaf 1 van hierdie regulasie uitgereik word aan 'n skip wat gebou is voor die datum waarop hierdie Aanhangsel van krag word vir daardie bepaalde skip se Administrasie, nie later nie as die eerste geskeduleerde droogdok na die datum van sodanige inwerkingtreding, maar geensins later as drie jaar na hierdie datum nie.
3. Sodanige sertifikaat moet uitgereik of geëndosseer word deur óf die Administrasie óf deur enige persoon of organisasie wat behoorlik deur die Administrasie gemagtig is. Die Administrasie aanvaar in elke geval volle verantwoordelikheid vir die sertifikaat.

Internasionale Energiedoeltreffendheidsertifikaat

4. 'n Internasionale Energiedoeltreffendheidsertifikaat vir die skip moet uitgereik word na 'n opname ooreenkomstig die bepalings van regulasie 5.4 van hierdie Aanhangsel aan enige skip met 'n 400 bruto tonnemaat en meer voordat daardie skip na hawens of afluiddige terminale onder die jurisdiksie van ander Partye kan vaar.
5. Die sertifikaat moet uitgereik of geëndosseer word óf deur die Administrasie óf enige organisasie wat behoorlik deur die Administrasie gemagtig is. In elke geval, aanvaar die Administrasie volle verantwoordelikheid vir die sertifikaat.

Voeldoeningverklaring—Brandolieverbruikverslagdoening

6. By ontvangs van gerapporteerde data na aanleiding van regulasie 22A.3 van hierdie Aanhangsel, moet die Administrasie of enige organisasie wat behoorlik deur die Administrasie gemagtig is*, bepaal hetsy die data gerapporteer is ooreenkomstig regulasie 22A van hierdie Aanhangsel en, indien wel, 'n Voeldoeningverklaring betreffende brandolieverbruik aan die skip uitreik nie later nie as vyf maande sedert die begin van die kalenderjaar. Die Administrasie aanvaar in elke geval volle verantwoordelikheid vir hierdie Voeldoeningverklaring.
7. By ontvangs van aangemelde data in navolging van regulasies 22A.4, 22A.5 of 22A.6 van hierdie Aanhangsel, moet die Administrasie of enige organisasie wat behoorlik deur die Administrasie gemagtig is, onverwyld vasstel hetsy die data ooreenkomstig regulasie 22A gerapporteer is en, indien wel, dan 'n Voeldoeningverklaring betreffende brandolieverbruik aan die skip uitreik. Die Administrasie aanvaar in elke geval volle verantwoordelikheid vir hierdie Voeldoeningverklaring.

Regulasie 7

Uitreiking van 'n Sertifikaat deur 'n ander Party

1. 'n Party kan, op versoek van die Administrasie, 'n skip laat opmeet en, indien tevrede dat die toepaslike bepalings van hierdie Aanhangsel nagekom word, 'n Internasionale Lugbesoedelingsvoorkomingsertifikaat of 'n Internasionale Energiedoeltreffendheidsertifikaat aan die skip uitreik of magtig, en waar gepas,

issue or authorize the issuance of an International Air Pollution Prevention Certificate or an International Energy Efficiency Certificate to the ship, and where appropriate, endorse or authorize the endorsement of such certificates on the ship, in accordance with this Annex.

2. A copy of the certificate and a copy of the survey report shall be transmitted as soon as possible to the requesting Administration.
3. A certificate so issued shall contain a statement to the effect that it has been issued at the request of the Administration and it shall have the same force and receive the same recognition as a certificate issued under regulation 6 of this Annex.
4. No International Air Pollution Prevention Certificate or International Energy Efficiency Certificate shall be issued to a ship which is entitled to fly the flag of a State which is not a Party.

Regulation 8

Form of Certificates and Statements of Compliance related to fuel oil consumption reporting

International Air Pollution Prevention Certificate

1. The International Air Pollution Prevention Certificate shall be drawn up in a form corresponding to the model given in appendix I to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.

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International Energy Efficiency Certificate

2. The International Energy Efficiency Certificate shall be drawn up in a form corresponding to the model given in appendix VIII to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing Party is also used, this shall prevail in case of a dispute or discrepancy.

Statement of Compliance —Fuel Oil Consumption Reporting

3. The Statement of Compliance pursuant to regulations 6.6 and 6.7 of this Annex shall be drawn up in a form corresponding to the model given in appendix X to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing Party is also used, this shall prevail in case of a dispute or discrepancy.

Regulation 9

Duration and validity of Certificates and Statements of Compliance related to fuel oil consumption reporting

International Air Pollution Prevention Certificate

1. An International Air Pollution Prevention Certificate shall be issued for a period specified by the Administration, which shall not exceed five years.
2. Notwithstanding the requirements of paragraph 1 of this regulation:
 - (a) when the renewal survey is completed within three months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing certificate;
 - (b) when the renewal survey is completed after the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing certificate; and
 - (c) when the renewal survey is completed more than three months before the expiry date of the existing certificate, the new certificate shall be valid from

die aanbringings van sodanige sertifikate op die skip onderskryf of magtig, in ooreenstemming met hierdie Aanhangel.

2. 'n Afskrif van die sertifikaat en 'n afskrif van die opnameverslag moet so gou moontlik aan die versoekende Administrasie gestuur word.
3. 'n Sertifikaat wat aldus uitgereik is, moet 'n verklaring bevat te dien effekte dat dit op versoek van die Administrasie uitgereik is en dit sal dieselfde regsrag hê en dieselfde erkenning ontvang as 'n sertifikaat wat kragtens regulasie 6 van hierdie Aanhangel uitgereik is.
4. Geen Internasionale Lugbesoedelingsvoorkomingsertifikaat of Internasionale Energiedoeltreffendheidsertifikaat word uitgereik aan 'n skip wat geregtig is om die vlag te hys van 'n Staat wat nie 'n Party is nie.

Regulasie 8

Vorm van sertifikate en verklarings van voldoening wat verband hou met verslagdoening oor brandolieverbruik

Internasionale Lugbesoedelingsvoorkomingsertifikaat

1. Die Internasionale Lugbesoedelingsvoorkomingsertifikaat moet opgestel word in 'n vorm wat ooreenstem met die voorbeeld in bylaag I by hierdie Aanhangel en moet ten minste in Engels, Frans of Spaans wees. Indien 'n amptelike taal van die uitreikerland ook gebruik word, sal dit geld in die geval van 'n dispuut of teenstrydigheid.

SIEN “INTERPRETATION OF MEPC”. 1/Omsend.795/Her.4

Internasionale Energiedoeltreffendheidsertifikaat

2. Die Internasionale Energiedoeltreffendheidsertifikaat moet opgestel word in 'n vorm wat ooreenstem met die voorbeeld in bylaag VIII tot hierdie Aanhangel en moet ten minste in Engels, Frans of Spaans wees. Indien 'n amptelike taal van die uitreikende Party ook gebruik word, sal dit geld in die geval van 'n dispuut of teenstrydigheid.

Voldoeningsverklaring—Brandolieverbruikverslagdoening

3. Die Voldoeningsverklaring ingevolge regulasies 6.6 en 6.7 van hierdie Aanhangel moet opgestel word in 'n vorm wat ooreenstem met die voorbeeld in bylaag X tot hierdie Aanhangel en moet ten minste in Engels, Frans of Spaans wees. Indien 'n amptelike taal van die uitreikende Party ook gebruik word, sal dit geld in die geval van 'n dispuut of teenstrydigheid.

Regulasie 9

Tydsduur en geldigheid van Sertifikate en Voldoeningsverklarings wat verband hou met brandolieverbruikverslagdoening

Internasionale Lugbesoedelingsvoorkomingsertifikaat

1. 'n Internasionale Lugbesoedelingsvoorkomingsertifikaat word uitgereik vir 'n tydperk wat deur die Administrasie gespesifiseer word, wat nie vyf jaar mag oorskry nie.
2. Ongeag die vereistes van paragraaf 1 van hierdie regulasie:
 - (a) wanneer die hernuwingsopname binne drie maande voor die vervaldatum van die bestaande sertifikaat voltooi word, sal die nuwe sertifikaat geldig wees vanaf die datum van voltooiing van die hernuwingsopname tot 'n datum van hoogstens vyf jaar vanaf die vervaldatum van die bestaande sertifikaat;
 - (b) wanneer die hernuwingsopname na die vervaldatum van die bestaande sertifikaat voltooi word, is die nuwe sertifikaat geldig vanaf die datum van voltooiing van die hernuwingsopname tot 'n datum wat nie vyf jaar oorskry nie vanaf die vervaldatum van die bestaande sertifikaat; en
 - (c) wanneer die hernuwingsopname meer as drie maande voor die vervaldatum van die bestaande sertifikaat voltooi word, is die nuwe sertifikaat geldig vanaf

the date of completion of the renewal survey to a date not exceeding five years from the date of completion of the renewal survey.

3. If a certificate is issued for a period of less than five years, the Administration may extend the validity of the certificate beyond the expiry date to the maximum period specified in paragraph 1 of this regulation, provided that the surveys referred to in regulations 5.1.3 and 5.1.4 of this Annex applicable when a certificate is issued for a period of five years are carried out as appropriate.
4. If a renewal survey has been completed and a new certificate cannot be issued or placed on board the ship before the expiry date of the existing certificate, the person or organization authorized by the Administration may endorse the existing certificate and such a certificate shall be accepted as valid for a further period that shall not exceed five months from the expiry date.
5. If a ship, at the time when a certificate expires, is not in a port in which it is to be surveyed, the Administration may extend the period of validity of the certificate, but this extension shall be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed, and then only in cases where it appears proper and reasonable to do so. No certificate shall be extended for a period longer than three months, and a ship to which an extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port without having a new certificate. When the renewal survey is completed, the new certificate shall be valid to a date not exceeding five years from the date of expiry of the existing certificate before the extension was granted.
6. A certificate issued to a ship engaged on short voyages that 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. When the renewal survey is completed, the new certificate shall be valid to a date not exceeding five years from the date of expiry of the existing certificate before the extension was granted.
7. In special circumstances, as determined by the Administration, a new certificate need not be dated from the date of expiry of the existing certificate as required by paragraph 2.1, 5 or 6 of this regulation. In these special circumstances, the new certificate shall be valid to a date not exceeding five years from the date of completion of the renewal survey.
8. If an annual or intermediate survey is completed before the period specified in regulation 5 of this Annex, then—
 - (a) the anniversary date shown on the certificate shall be amended by endorsement to a date that shall not be more than three months later than the date on which the survey was completed;
 - (b) the subsequent annual or intermediate survey required by regulation 5 of this Annex shall be completed at the intervals prescribed by that regulation using the new anniversary date; and
 - (c) the expiry date may remain unchanged, provided one or more annual or intermediate surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by regulation 5 of this Annex are not exceeded.
9. A certificate issued under regulation 6 or 7 of this Annex shall cease to be valid in any of the following cases—
 - (a) if the relevant surveys are not completed within the periods specified under regulation 5.1 of this Annex;
 - (b) if the certificate is not endorsed in accordance with regulation 5.1.3 or 5.1.4 of this Annex; and

die datum van voltooiing van die hernuwingsopname tot 'n datum van hoogstens vyf jaar vanaf die datum van voltooiing van die hernuwingsopname.

3. Indien 'n sertifikaat vir 'n tydperk van minder as vyf jaar uitgereik word, kan die Administrasie die geldigheid van die sertifikaat na die vervaldatum verleng tot die maksimum tydperk gespesifiseer in paragraaf 1 van hierdie regulasie, met dien verstande dat die opnames waarna in regulasies 5.1.3 en 5.1.4 van hierdie Aanhangsel verwys word van toepassing is wanneer 'n sertifikaat vir 'n tydperk van vyf jaar uitgereik word, word uitgevoer soos toepaslik.
4. Indien 'n hernuwingsopname voltooi is en 'n nuwe sertifikaat nie uitgereik of aan boord van die skip geplaas kan word voor die vervaldatum van die bestaande sertifikaat nie, kan die persoon of organisasie wat deur die Administrasie gemagtig is, die bestaande sertifikaat endosseer en so 'n sertifikaat moet as geldig aanvaar word vir 'n verdere tydperk wat nie vyf maande vanaf die vervaldatum sal oorskry nie.
5. Indien 'n skip, op die tydstip wanneer 'n sertifikaat verval, nie in 'n hawe is waarin dit opgemeet gaan word nie, kan die Administrasie die geldigheidstydperk van die sertifikaat verleng, maar hierdie verlenging sal slegs toegestaan word vir die doel om die skip toe te laat om sy vaart na die hawe te voltooi waarin dit opgemeet gaan word, en dan slegs in gevalle waar dit behoorlik en redelik blyk om dit te doen. Geen sertifikaat sal vir 'n tydperk langer as drie maande verleng word nie, en 'n skip waaraan verlenging toegestaan word, sal nie, by sy aankoms in die hawe waarin dit opgemeet gaan word, op grond van sodanige verlenging geregtig wees om daardie hawe sonder 'n nuwe sertifikaat te verlaat nie. Wanneer die hernuwingsopname voltooi is, sal die nuwe sertifikaat geldig wees tot 'n datum van hoogstens vyf jaar vanaf die vervaldatum van die bestaande sertifikaat voordat die verlenging toegestaan is.
6. 'n Sertifikaat wat uitgereik is aan 'n skip wat op kort vaarte gebruik is en wat nie ingevolge die voorgaande bepalings van hierdie regulasie verleng is nie, kan deur die Administrasie verleng word vir 'n grasietydperk van tot een maand vanaf die vervaldatum daarop vermeld. Wanneer die hernuwingsopname voltooi is, sal die nuwe sertifikaat geldig wees tot 'n datum van hoogstens vyf jaar vanaf die vervaldatum van die bestaande sertifikaat voordat die verlenging toegestaan is.
7. In spesiale omstandighede, soos deur die Administrasie bepaal, hoef 'n nuwe sertifikaat nie gedateer te word vanaf die vervaldatum van die bestaande sertifikaat soos vereis deur paragraaf 2.1, 5 of 6 van hierdie regulasie nie. In hierdie spesiale omstandighede sal die nuwe sertifikaat geldig wees tot 'n datum van hoogstens vyf jaar vanaf die datum van voltooiing van die hernuwingsopname.
8. Indien 'n jaarlikse of tussentydse opname voltooi word voor die tydperk gespesifiseer in regulasie 5 van hierdie Aanhangsel, dan—
 - (a) moet die jaardatum wat op die sertifikaat aangedui word, deur endossement gewysig word na 'n datum wat nie meer as drie maande later as die datum waarop die opname voltooi is nie, moet wees;
 - (b) die daaropvolgende jaarlikse of tussentydse opname wat deur regulasie 5 van hierdie Aanhangsel vereis word, moet voltooi word met die tussenposes wat deur daardie regulasie voorgeskryf word, met gebruikmaking van die nuwe jaardatum; en
 - (c) die vervaldatum kan onveranderd bly, mits een of meer jaarlikse of intermediêre opnames, soos toepaslik, uitgevoer word sodat die maksimum intervalle tussen die opnames voorgeskryf deur regulasie 5 van hierdie Aanhangsel nie oorskry word nie.
9. 'n Sertifikaat wat kragtens regulasie 6 of 7 van hierdie Aanhangsel uitgereik is, hou op om geldig te wees in enige van die volgende gevalle—
 - (a) indien die betrokke opnames nie voltooi word binne die tydperke gespesifiseer in regulasie 5.1 van hierdie Aanhangsel nie;
 - (b) indien die sertifikaat nie in ooreenstemming met regulasie 5.1.3 of 5.1.4 van hierdie Aanhangsel geëndosseer is nie; en

- (c) upon transfer of the ship to the flag of another State. A new certificate shall only be issued when the Government issuing the new certificate is fully satisfied that the ship is in compliance with the requirements of regulation 5.4 of this Annex. In the case of a transfer between Parties, if requested within three months after the transfer has taken place, the Government of the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports.

International Energy Efficiency Certificate

10. The International Energy Efficiency Certificate shall be valid throughout the life of the ship subject to the provisions of paragraph 11 below.
11. An International Energy Efficiency Certificate issued under this Annex shall cease to be valid in any of the following cases—
- (a) if the ship is withdrawn from service or if a new certificate is issued following major conversion of the ship; or
 - (b) upon transfer of the ship to the flag of another State. A new certificate shall only be issued when the Government issuing the new certificate is fully satisfied that the ship is in compliance with the requirements of chapter 4 of this Annex. In the case of a transfer between Parties, if requested within three months after the transfer has taken place, the Government of the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports.

Statement of Compliance —Fuel Oil Consumption Reporting

12. The Statement of Compliance pursuant to regulation 6.6 of this Annex shall be valid for the calendar year in which it is issued and for the first five months of the following calendar year. The Statement of Compliance pursuant to regulation 6.7 of this Annex shall be valid for the calendar year in which it is issued, for the following calendar year, and for the first five months of the subsequent calendar year. All Statements of Compliance shall be kept on board for at least the period of their validity.

Regulation 10

Port State control on operational requirements

1. A ship, when in a port or an offshore terminal under the jurisdiction of another Party, is subject to inspection by officers duly authorized by such Party concerning operational requirements under this Annex, where there are clear grounds for believing that the master or crew are not familiar with essential shipboard procedures relating to the prevention of air pollution from ships.
2. In the circumstances given in paragraph 1 of this regulation, the Party shall take such steps as to ensure that the ship shall not sail until the situation has been brought to order in accordance with the requirements of this Annex.
3. Procedures relating to the port State control prescribed in article 5 of the present Convention shall apply to this regulation.
4. Nothing in this regulation shall be construed to limit the rights and obligations of a Party carrying out control over operational requirements specifically provided for in the present Convention.
5. In relation to chapter 4 of this Annex, any port State inspection shall be limited to verifying, when appropriate, that there is a valid Statement of Compliance related

- (c) by oordrag van die skip na die vlag van 'n ander staat. 'n Nuwe sertifikaat moet slegs uitgereik word wanneer die Regering wat die nuwe sertifikaat uitreik ten volle oortuig is dat die skip aan die vereistes van regulasie 5.4 van hierdie Aanhangel voldoen. In die geval van 'n oordrag tussen Partye, indien versoek binne drie maande nadat die oordrag plaasgevind het, moet die Regering van die Party wie se vlag die skip voorheen geregtig was om te hys, so gou moontlik afskrifte van die sertifikaat wat die skip voor die oordrag gedra het en, indien beskikbaar, afskrifte van die betrokke opnameverslae aan die Administrasie stuur.

Internasionale Energiedoeltreffendheidsertifikaat

10. Die Internasionale Energiedoeltreffendheidsertifikaat is geldig vir die hele lewe van die skip onderhewig aan die bepalings van paragraaf 11 hieronder.
11. 'n Internasionale Energiedoeltreffendheidsertifikaat wat kragtens hierdie Aanhangel uitgereik is, sal ophou om geldig te wees in enige van die volgende gevalle—
- (a) indien die skip aan diens onttrek word of as 'n nuwe sertifikaat na 'n groot ombouing van die skip uitgereik word; of
- (b) by oordrag van die skip na die vlag van 'n ander Staat. 'n Nuwe sertifikaat sal slegs uitgereik word wanneer die Regering wat die nuwe sertifikaat uitreik ten volle oortuig is dat die skip aan die vereistes van hoofstuk 4 van hierdie Aanhangel voldoen. In die geval van 'n oordrag tussen partye, indien versoek binne drie maande nadat die oordrag plaasgevind het, moet die regering van die party wie se vlag die skip voorheen geregtig was om te hys, so gou moontlik afskrifte van die sertifikaat wat voor die oordrag deur die skip gedra is en, indien beskikbaar, afskrifte van die betrokke opnameverslae, aan die Administrasie stuur.

Voldoeningsverklaring— Brandolieverbruikverslagdoening

12. Die Voldoeningsverklaring ingevolge regulasie 6.6 van hierdie Aanhangel is geldig vir die kalenderjaar waarin dit uitgereik word en vir die eerste vyf maande van die volgende kalenderjaar. Die Voldoeningsverklaring ingevolge regulasie 6.7 van hierdie Aanhangel, is geldig vir die kalenderjaar waarin dit uitgereik word, vir die volgende kalenderjaar, en vir die eerste vyf maande van die daaropvolgende kalenderjaar. Alle Voldoeningsverklarings sal aan boord gehou word vir ten minste die tydperk van hul geldigheid.

Regulasie 10

Hawestaatbeheer oor bedryfsvereistes

1. 'n Skip, wanneer dit in 'n hawe of 'n buitelandse terminaal onder die jurisdiksie van 'n ander Party is, is onderhewig aan inspeksie deur beamptes wat behoorlik deur so 'n Party gemagtig is met betrekking tot bedryfsvereistes kragtens hierdie Aanhangel, waar daar duidelike gronde is om te glo dat die meester of bemanning nie vertrou is met noodsaaklike prosedures aan boord wat verband hou met die voorkoming van lugbesoedeling deur skepe nie.
2. In die omstandighede wat in paragraaf 1 van hierdie regulasie gegee word, moet die Party sodanige stappe neem om te verseker dat die skip nie sal vaar voordat die situasie in orde gebring is in ooreenstemming met die vereistes van hierdie Aanhangel nie.
3. Prosedures met betrekking tot die hawestaatbeheer wat in artikel 5 van hierdie Konvensie voorgeskryf is, is op hierdie regulasie van toepassing.
4. Niks in hierdie regulasie sal uitgelê word dat dit die regte en verpligtinge beperk van 'n Party wat beheer uitoefen oor bedryfsvereistes waarvoor spesifiek in hierdie Konvensie voorsiening gemaak word nie.
5. Met betrekking tot hoofstuk 4 van hierdie Aanhangel, sal enige hawestaatinspeksie beperk word tot die verifiëring, wanneer toepaslik, dat daar 'n geldige Voldoeningsverklaring met betrekking tot brandolieverbruikverslag-

to fuel oil consumption reporting and International Energy Efficiency Certificate on board, in accordance with article 5 of the Convention.

Regulation 11

Detection of violations and enforcement

1. Parties shall co-operate in the detection of violations and the enforcement of the provisions of this Annex, using all appropriate and practicable measures of detection and environmental monitoring, adequate procedures for reporting and accumulation of evidence.
2. A ship to which this Annex applies may, in any port or offshore terminal of a Party, be subject to inspection by officers appointed or authorized by that Party for the purpose of verifying whether the ship has emitted any of the substances covered by this Annex in violation of the provision of this Annex. If an inspection indicates a violation of this Annex, a report shall be forwarded to the Administration for any appropriate action.
3. Any Party shall furnish to the Administration evidence, if any, that the ship has emitted any of the substances covered by this Annex in violation of the provisions of this Annex. If it is practicable to do so, the competent authority of the former Party shall notify the master of the ship of the alleged violation.
4. Upon receiving such evidence, the Administration so informed shall investigate the matter, and may request the other Party to furnish further or better evidence of the alleged contravention. If the Administration is satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, it shall cause such proceedings to be taken in accordance with its law as soon as possible. The Administration shall promptly inform the Party that has reported the alleged violation, as well as the Organization, of the action taken.
5. A Party may also inspect a ship to which this Annex applies when it enters the ports or offshore terminals under its jurisdiction, if a request for an investigation is received from any Party together with sufficient evidence that the ship has emitted any of the substances covered by the Annex in any place in violation of this Annex. The report of such investigation shall be sent to the Party requesting it and to the Administration so that the appropriate action may be taken under the present Convention.
6. The international law concerning the prevention, reduction and control of pollution of the marine environment from ships, including that law relating to enforcement and safeguards, in force at the time of application or interpretation of this Annex, applies, *mutatis mutandis*, to the rules and standards set forth in this Annex.

Chapter 3

Requirements for control of emissions from ships

Regulation 12

Ozone-depleting substances

1. This regulation does not apply to permanently sealed equipment where there are no refrigerant charging connections or potentially removable components containing ozone-depleting substances.
2. Subject to the provisions of regulation 3.1, any deliberate emissions of ozone-depleting substances shall be prohibited. Deliberate emissions include emissions occurring in the course of maintaining, servicing, repairing or disposing of systems or equipment, except that deliberate emissions do not include minimal releases associated with the recapture or recycling of an ozone-depleting substance.

doening en Internasionale Energiedoeltreffendheidsertifikaat aan boord is, ooreenkomstig artikel 5 van die Konvensie.

Regulasie 11

Bespeuring van oortredings en afdwinging

1. Partye sal saamwerk in die bespeuring van oortredings en die afdwinging van die bepalings van hierdie Aanhangsel, deur gebruik te maak van alle toepaslike en uitvoerbare maatreëls van opsporing en omgewingsmonitering, toereikende prosedures vir aanmelding en die versameling van bewyse.
2. 'n Skip waarop hierdie Aanhangsel van toepassing is, kan in enige hawe of buitelandse terminaal van 'n Party onderhewig wees aan inspeksie deur beamptes wat deur daardie Party aangestel of gemagtig is, met die doel om te verifieer of die skip enige van die stowwe wat deur hierdie Aanhangsel gedek word, vrygestel het in oortreding van die bepaling van hierdie Aanhangsel. Indien 'n inspeksie 'n oortreding van hierdie Aanhangsel aandui, sal 'n verslag aan die Administrasie gestuur word vir enige toepaslike optrede.
3. Enige Party moet aan die Administrasie bewys lewer, indien enige, dat die skip enige van die stowwe wat deur hierdie Aanhangsel gedek word, vrygestel het in stryd met die bepalings van hierdie Aanhangsel. Indien dit prakties moontlik is om dit te doen, sal die bevoegde owerheid van die voormalige Party die meester van die skip van die beweerde oortreding in kennis stel.
4. By ontvangs van sodanige bewyse, sal die Administrasie wat aldus ingelig is, die aangeleentheid ondersoek, en kan die ander Party versoek om verdere of beter bewyse van die beweerde oortreding te verskaf. Indien die Administrasie oortuig is dat voldoende bewyse beskikbaar is om verrigtinge ten opsigte van die beweerde oortreding in te stel, moet die Administrasie so gou moontlik sodanige verrigtinge in ooreenstemming met sy reg laat voer. Die Administrasie moet die Party wat die beweerde oortreding aangemeld het, sowel as die Organisasie, onmiddellik in kennis stel van die stappe wat gedoen is.
5. 'n Party kan ook 'n skip waarop hierdie Aanhangsel van toepassing is, inspekteer wanneer daardie skip die hawens of buitelandse terminale onder sy jurisdiksie binnegaan, indien 'n versoek vir 'n ondersoek van enige Party ontvang word, tesame met voldoende bewyse dat die skip enige van die stowwe wat deur die Aanhangsel gedek word op enige plek in stryd met hierdie Aanhangsel vrygestel het. Die verslag van sodanige ondersoek sal aan die Party wat dit versoek en aan die Administrasie gestuur word sodat die toepaslike stappe ingevolge hierdie Konvensie gedoen kan word.
6. Die volkereg met betrekking tot die voorkoming, vermindering en beheer van besoedeling van die mariene omgewing deur skepe, met inbegrip van daardie reg met betrekking tot afdwinging en voorsorgmaatreëls, wat van krag is ten tyde van toepassing of uitleg van hierdie Aanhangsel, is *mutatis mutandis* van toepassing op die reëls en standaarde in hierdie Aanhangsel uiteengesit.

Hoofstuk 3

Vereistes vir beheer van emissies vanaf skepe

Regulasie 12

Osoonafbrekende stowwe

1. Hierdie regulasie is nie van toepassing nie op permanent verseëlde toerusting waar daar geen koelmiddelaanvullingsverbindinge of moontlik verwyderbare komponente is wat osoonafbrekende stowwe bevat nie.
2. Behoudens die bepalings van regulasie 3.1, sal enige doelbewuste vrystelling van osoonafbrekende stowwe verbied word. Doelbewuste emissies sluit emissies in wat plaasvind tydens die instandhouding, diens, herstel of wegdoening van stelsels of toerusting, behalwe dat doelbewuste emissies nie minimale vrystellings insluit wat geassosieer word met die herwinning of herwinning van 'n osoonafbrekende

Emissions arising from leaks of an ozone-depleting substance, whether or not the leaks are deliberate, may be regulated by Parties.

- 3.1 Installations that contain ozone-depleting substances, other than hydrochlorofluorocarbons, shall be prohibited—
 - (a) on ships constructed on or after 19 May 2005; or
 - (b) in the case of ships constructed before 19 May 2005, which have a contractual delivery date of the equipment to the ship on or after 19 May 2005 or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 19 May 2005.
- 3.2 Installations that contain hydrochlorofluorocarbons shall be prohibited—
 - (a) on ships constructed on or after 1 January 2020; or
 - (b) in the case of ships constructed before 1 January 2020, which have a contractual delivery date of the equipment to the ship on or after 1 January 2020 or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 1 January 2020.
4. The substances referred to in this regulation, and equipment containing such substances, shall be delivered to appropriate reception facilities when removed from ships.
5. Each ship subject to regulation 6.1 shall maintain a list of equipment containing ozone-depleting substances.
6. Each ship subject to regulation 6.1 that has rechargeable systems that contain ozone-depleting substances shall maintain an *ozone-depleting substances record book*. This record book may form part of an existing logbook or electronic recording system as approved by the Administration.

[MEPC. 316(74) (*Amended regulation 12.6 is expected to enter into force on 1 October 2020.*)]

7. Each ship subject to regulation 6.1 that has rechargeable systems that contain ozone-depleting substances shall maintain an *ozone-depleting substances record book*. This record book may form part of an existing logbook or electronic record book as approved by the Administration. An electronic recording system referred to in regulation 12.6, as adopted by resolution MEPC.176(58), shall be considered an electronic record book, provided the electronic recording system is approved by the Administration on or before the first scheduled IAPP renewal survey on or after 1 October 2020, but not later than 1 October 2025, taking into account the Guidelines developed by the Organization.
8. Entries in the ozone-depleting substances record book shall be recorded in terms of mass (*kg*) of substance and shall be completed without delay on each occasion, in respect of the following:
 - (a) recharge, full or partial, of equipment containing ozone-depleting substances;
 - (b) repair or maintenance of equipment containing ozone-depleting substances;
 - (c) discharge of ozone-depleting substances to the atmosphere—
 - (i) deliberate; and
 - (ii) non-deliberate;
 - (e) discharge of ozone-depleting substances to land-based reception facilities; and
 - (f) supply of ozone-depleting substances to the ship.

Regulation 13

Nitrogen oxides (NO_x)

Application

- 1.1 This regulation shall apply to—
 - (a) each marine diesel engine with a power output of more than 130 kW installed on a ship; and

stof nie. Emissies wat voortspruit uit lekkasies van 'n osoonafbrekende stof, of die lekkasies opsetlik is of nie, kan deur partye gereguleer word.

- 3.1 Installasies wat osoonafbrekende stowwe bevat, behalwe chloorfluorkoolwaterstowwe, moet verbied word—
 - (a) op skepe wat op of na 19 Mei 2005 gebou is; of
 - (b) in die geval van skepe wat voor 19 Mei 2005 gebou is, wat 'n kontraktuele afleveringsdatum van die toerusting aan die skip het op of na 19 Mei 2005 of, in die afwesigheid van 'n kontraktuele afleveringsdatum, die werklike aflevering van die toerusting aan die skip op of na 19 Mei 2005.
- 3.2 Installasies wat chloorfluorkoolwaterstowwe bevat, moet verbied word—
 - (a) op skepe wat op of na 1 Januarie 2020 gebou is; of
 - (b) in die geval van skepe wat voor 1 Januarie 2020 gebou is, wat 'n kontraktuele afleveringsdatum van die toerusting aan die skip het op of na 1 Januarie 2020 of, in die afwesigheid van 'n kontraktuele afleveringsdatum, die werklike aflevering van die toerusting aan die skip op of na 1 Januarie 2020.
4. Die stowwe waarna in hierdie regulasie verwys word, en toerusting wat sulke stowwe bevat, moet by toepaslike ontvangsfasiliteite afgelewer word wanneer dit van skepe verwyder word.
5. Elke skip wat aan regulasie 6.1 onderworpe is, moet 'n lys van toerusting hou wat osoonafbrekende stowwe bevat.
6. Elke skip wat aan regulasie 6.1 onderworpe is wat herlaaibare stelsels het wat osoonafbrekende stowwe bevat, moet 'n osoonafbrekende stowwe-rekordboek byhou. Hierdie rekordboek kan deel vorm van 'n bestaande logboek of elektroniese aantekeningstelsel soos deur die Administrasie goedgekeur.

[MEPC. 316(74) (*Gewysigde regulasie 12.6 sal na verwagting op 1 Oktober 2020 in werking tree.*)]

7. Elke skip wat aan regulasie 6.1 onderworpe is wat herlaaibare stelsels het wat osoonafbrekende stowwe bevat, moet 'n rekordboek byhou van osoonafbrekende stowwe. Hierdie rekordboek kan deel uitmaak van 'n bestaande logboek of elektroniese rekordboek soos deur die Administrasie goedgekeur. 'n Elektroniese rekordstelsel waarna in regulasie 12.6 verwys word, soos aangeneem deur resoluie MEPC.176(58), word as 'n elektroniese rekordboek beskou, mits die elektroniese opnamestelsel deur die Administrasie goedgekeur word op of voor die eerste geskeduleerde ILBV-hernuwingsopname op of na 1 Oktober 2020, maar nie later nie as 1 Oktober 2025, met inagneming van die riglyne wat deur die Organisasie ontwikkel is.
8. Inskrywings in die rekordboek van osoonafbrekende stowwe moet ingevolge massa (*kg*) van stof aangeteken word en moet onverwyld by elke geleentheid voltooi word, ten opsigte van die volgende:
 - (a) herlaai, geheel of gedeeltelik, van toerusting wat osoonafbrekende stowwe bevat;
 - (b) herstel of instandhouding van toerusting wat osoonafbrekende stowwe bevat;
 - (c) afvoer van osoonafbrekende stowwe na die atmosfeer—
 - (i) opsetlik; en
 - (ii) nie doelbewus nie;
 - (d) afvoer van osoonafbrekende stowwe na landgebaseerde ontvangsfasiliteite; en
 - (e) voorsiening van osoonafbrekende stowwe aan die skip.

Regulasie 13

Stikstofoksiede (NO_x)

Toepassing

- 1.1 Hierdie regulasie is van toepassing op—
 - (a) elke mariene dieselenjin met 'n kraglewering van meer as 130 kW wat op 'n skip geïnstalleer is; en

- (b) each marine diesel engine with a power output of more than 130 kW that undergoes a major conversion on or after 1 January 2000 except when demonstrated to the satisfaction of the Administration that such engine is an identical replacement to the engine that it is replacing and is otherwise not covered under paragraph 1.1.1 of this regulation.
- 1.2 This regulation does not apply to—
 - (a) a marine diesel engine intended to be used solely for emergencies, or solely to power any device or equipment intended to be used solely for emergencies on the ship on which it is installed, or a marine diesel engine installed in lifeboats intended to be used solely for emergencies; and
 - (b) a marine diesel engine installed on a ship solely engaged in voyages within waters subject to the sovereignty or jurisdiction of the State the flag of which the ship is entitled to fly, provided that such engine is subject to an alternative NO_x control measure established by the Administration.
- 1.3 Notwithstanding the provisions of paragraph 1.1 of this regulation, the Administration may provide an exclusion from the application of this regulation for any marine diesel engine that is installed on a ship constructed, or for any marine diesel engine that undergoes a major conversion, before 19 May 2005, provided that the ship on which the engine is installed is solely engaged in voyages to ports or offshore terminals within the State the flag of which the ship is entitled to fly.

Major conversion

- 2.1 For the purpose of this regulation, *major conversion* means a modification on or after 1 January 2000 of a marine diesel engine that has not already been certified to the standards set forth in paragraph 3, 4, or 5.1.1 of this regulation where—
 - (a) the engine is replaced by a marine diesel engine or an additional marine diesel engine is installed, or
 - (b) any substantial modification, as defined in the revised NO_x Technical Code 2008, is made to the engine, or
 - (c) the maximum continuous rating of the engine is increased by more than 10% compared to the maximum continuous rating of the original certification of the engine.
- 2.2 For a major conversion involving the replacement of a marine diesel engine with a non-identical marine diesel engine, or the installation of an additional marine diesel engine, the standards in this regulation at the time of the replacement or addition of the engine shall apply. In the case of replacement engines only, if it is not possible for such a replacement engine to meet the standards set forth in paragraph 5.1.1 of this regulation (Tier III, as applicable), then that replacement engine shall meet the standards set forth in paragraph 4 of this regulation (Tier II), taking into account guidelines developed by the Organization.
- 2.3 A marine diesel engine referred to in paragraph 2.1.2 or 2.1.3 of this regulation shall meet the following standards—
 - (a) for ships constructed prior to 1 January 2000, the standards set forth in paragraph 3 of this regulation shall apply; and
 - (b) for ships constructed on or after 1 January 2000, the standards in force at the time the ship was constructed shall apply.

Tier I

- 3. Subject to regulation 3 of this Annex, the operation of a marine diesel engine that is installed on a ship constructed on or after 1 January 2000 and prior to 1 January 2011 is prohibited, except when the emission of nitrogen oxides (calculated as the total weighted emission of NO₂) from the engine is within the following limits, where *n* = rated engine speed (crankshaft revolutions per minute):
 - (a) 17.0 g/kWh when *n* is less than 130 rpm;

- (b) elke mariene dieselenjin met 'n kraglewering van meer as 130 kW wat 'n groot ombouing ondergaan op of na 1 Januarie 2000, behalwe wanneer tot die bevrediging van die Administrasie gedemonstreer is dat sodanige enjin 'n identiese plaasvervanger is vir die enjin wat dit vervang en word andersins nie onder paragraaf 1.1.1 van hierdie regulasie gedek nie.

1.2 Hierdie regulasie is nie van toepassing nie op—

- (a) 'n mariene dieselenjin wat bedoel is om uitsluitlik vir noodgevalle gebruik te word, of uitsluitlik om enige toestel of toerusting aan te dryf wat bedoel is om uitsluitlik vir noodgevalle gebruik te word op die skip waarop dit geïnstalleer is, of 'n mariene dieselenjin geïnstalleer in reddingsbote wat bedoel is om uitsluitlik vir noodgevalle gebruik te word; en
- (b) 'n mariene dieselenjin geïnstalleer op 'n skip wat uitsluitlik besig is met vaarte binne waters onderhewig aan die soewereiniteit of jurisdiksie van die Staat wie se vlag die skip geregtig is om te hys, met dien verstande dat sodanige enjin onderworpe is aan 'n alternatiewe NO_x-beheermaatreël deur die Administrasie.

1.3 Nieteenstaande die bepalinge van paragraaf 1.1 van hierdie regulasie, kan die Administrasie 'n uitsluiting van die toepassing van hierdie regulasie verskaf vir enige mariene dieselenjin wat geïnstalleer is op 'n skip wat gebou is, of vir enige mariene dieselenjin wat 'n groot ombouing ondergaan, voor 19 Mei 2005, met dien verstande dat die skip waarop die enjin geïnstalleer is uitsluitlik besig is met vaarte na hawens of buitelandse terminale binne die Staat waarvan die skip geregtig is om die vlag te hys.

Groot ombouing

- 2.1 Vir die doel van hierdie regulasie beteken *groot ombouing* 'n modifikasie op of na 1 Januarie 2000 van 'n mariene dieselenjin wat nie reeds gesertifiseer is nie volgens die standaarde uiteengesit in paragraaf 3, 4, of 5.1.1 van hierdie regulasie waar—
- (a) die enjin deur 'n mariene dieselenjin vervang word of 'n bykomende mariene dieselenjin geïnstalleer word, of
 - (b) enige wesenlike verandering, soos omskryf in die hersiene NO_x Tegniese Kode 2008, aan die enjin aangebring word, of
 - (c) die maksimum deurlopende aanslag van die enjin word met meer as 10% verhoog in vergelyking met die maksimum deurlopende aanslag van die oorspronklike sertifisering van die enjin.
- 2.2 Vir 'n groot ombouing wat die vervanging van 'n mariene dieselenjin met 'n nie-identiese mariene dieselenjin behels, of die installering van 'n bykomende mariene dieselenjin, sal die standaarde in hierdie regulasie ten tyde van die vervanging of byvoeging van die enjin van toepassing wees. Slegs in die geval van vervangingsenjins, indien dit nie moontlik is vir so 'n vervangingsenjin om te voldoen aan die standaarde uiteengesit in paragraaf 5.1.1 van hierdie regulasie nie (Vlak III, soos van toepassing), moet daardie vervangingsenjin voldoen aan die standaarde uiteengesit in paragraaf 4 van hierdie regulasie (Vlak II), met inagneming van riglyne wat deur die Organisasie ontwikkel is.
- 2.3 'n Mariene dieselenjin waarna in paragraaf 2.1.2 of 2.1.3 van hierdie regulasie verwys word, moet aan die volgende standaarde voldoen—
- (a) vir skepe wat voor 1 Januarie 2000 gebou is, is die standaarde uiteengesit in paragraaf 3 van hierdie regulasie van toepassing; en
 - (b) vir skepe wat op of na 1 Januarie 2000 gebou is, is die standaarde van toepassing op die tydstip waarop die skip gebou is.

Vlak I

3. Behoudens regulasie 3 van hierdie Aanhangsel, word die bedryf van 'n mariene dieselenjin wat geïnstalleer is op 'n skip wat op of na 1 Januarie 2000 en voor 1 Januarie 2011 gebou is, verbied, behalwe wanneer die vrystelling van stikstofoksiede (bereken as die totale geweegde emissie van NO₂) vanaf die enjin binne die volgende perke is, waar n = aangeslane enjin spoed (krukasomwenteling per minuut):
- (a) 17.0 g/kWh wanneer n minder as 130 r.p.m is;

- (b) $45 n^{(-0.2)}$ g/kWh when n is 130 or more but less than 2,000 rpm;
- (c) 9.8 g/kWh when n is 2,000 rpm or more.

Tier II

4. Subject to regulation 3 of this Annex, the operation of a marine diesel engine that is installed on a ship constructed on or after 1 January 2011 is prohibited, except when the emission of nitrogen oxides (calculated as the total weighted emission of NO_2) from the engine is within the following limits, where n = rated engine speed (crankshaft revolutions per minute):
 - (a) 14.4 g/kWh when n is less than 130 rpm;
 - (b) $44 n^{(-0.23)}$ g/kWh when n is 130 or more but less than 2,000 rpm;
 - (c) 7.7 g/kWh when n is 2,000 rpm or more.

Tier III

- 5.1 Subject to regulation 3 of this Annex, in an emission control area designated for Tier III NO_x control under paragraph 6 of this regulation (NO_x Tier III emission control area), the operation of a marine diesel engine that is installed on a ship—
 - (a) is prohibited except when the emission of nitrogen oxides (calculated as the total weighted emission of NO_2) from the engine is within the following limits, where n = rated engine speed (crankshaft revolutions per minute):
 - (i) 3.4 g/kWh when n is less than 130 rpm;
 - (ii) $9 n^{(-0.2)}$ g/kWh when n is 130 or more but less than 2,000 rpm; and
 - (iii) 2.0 g/kWh when n is 2,000 rpm or more;
 - (b) that ship is constructed on or after:
 - (i) 1 January 2016 and is operating in the North American Emission Control Area or the United States Caribbean Sea Emission Control Area; and
 - (ii) 1 January 2021 and is operating in the Baltic Sea Emission Control Area or the North Sea Emission Control Area.
 - (c) that ship is operating in a NO_x Tier III emission control area, other than an emission control area described in paragraph 5.1.2 of this regulation, and is constructed on or after the date of adoption of such an emission control area, or a later date as may be specified in the amendment designating the NO_x Tier III emission control area, whichever is later.
- 5.2 The standards set forth in paragraph 5.1.1 of this regulation shall not apply to:
 - (a) a marine diesel engine installed on a ship with a length (l), as defined in regulation 1.19 of Annex I to the present Convention, of less than 24 metres when it has been specifically designed, and is used solely, for recreational purposes; or
 - (b) a marine diesel engine installed on a ship with a combined nameplate diesel engine propulsion power of less than 750 kW if it is demonstrated, to the satisfaction of the Administration, that the ship cannot comply with the standards set forth in paragraph 5.1.1 of this regulation because of design or construction limitations of the ship; or
 - (c) a marine diesel engine installed on a ship constructed prior to 1 January 2021 of less than 500 gross tonnage, with a length (l), as defined in regulation 1.19 of Annex I to the present Convention, of 24 metres or over when it has been specifically designed, and is used solely, for recreational purposes.
- 5.3 The tier and on/off status of marine diesel engines installed on board a ship to which paragraph 5.1 of this regulation applies which are certified to both Tier II and Tier III or which are certified to Tier II only shall be recorded in such logbook or electronic record book as prescribed by the Administration at entry into and exit from a NO_x Tier III emission control area, or when the on/off status changes within such an area, together with the date, time and position of the ship.
- 5.4 Emissions of nitrogen oxides from a marine diesel engine subject to paragraph 5.1 of this regulation that occur immediately following building and sea trials of a

- (b) $45 n^{(-0.2)}$ g/kWh wanneer n 130 of meer, maar minder as 2 000 r.p.m is;
- (c) 9.8 g/kWh wanneer n 2 000 r.p.m of meer is.

Vlak II

4. Behoudens regulasie 3 van hierdie Aanhangsel, word die werking van 'n mariene dieselenjin wat geïnstalleer is op 'n skip wat op of na 1 Januarie 2011 gebou is, verbied, behalwe wanneer die vrystelling van stikstofoksiede (bereken as die totale geweegde vrystelling van NO_2) vanaf die enjin binne die volgende perke is, waar n = aangeslane enjin spoed (krukas-omwentelinge per minuut):
 - (a) 14.4 g/kWh wanneer n minder as 130 r.p.m. is;
 - (b) $44 n^{(-0.23)}$ g/kWh wanneer n 130 of meer maar minder as 2 000 r.p.m. is;
 - (c) 7.7 g/kWh wanneer n 2 000 r.p.m. of meer is.

Vlak III

- 5.1 Behoudens regulasie 3 van hierdie Aanhangsel, in 'n emissiebeheergebied wat aangewys is vir Vlak III NO_x -beheer kragtens paragraaf 6 van hierdie regulasie (NO_x Vlak III-emissiebeheergebied), die bedryf van 'n mariene dieselenjin wat op 'n skip geïnstalleer is—
 - (a) is verbode, behalwe wanneer die vrystelling van stikstofoksiede (bereken as die totale geweegde vrystelling van NO_2) van die enjin binne die volgende perke is, waar n = aangeslane enjin spoed (krukas-omwentelinge per minuut):
 - (i) 3.4 g/kWh wanneer n minder as 130 r.p.m. is;
 - (ii) $9 n^{(-0.2)}$ g/kWh wanneer n 130 of meer, maar minder as 2 000 r.p.m. is; en
 - (iii) 2.0 g/kWh wanneer n 2 000 r.p.m. of meer is;
 - (b) daardie skip gebou is op of na:
 - (i) 1 Januarie 2016 en bedryf word in die Noord-Amerikaanse Emissiebeheergebied of die Verenigde State Karibiese See Emissiebeheergebied; en
 - (ii) 1 Januarie 2021 en bedryf word in die Oossee-emissiebeheergebied of die Noordsee-emissiebeheergebied.
 - (c) daardie skip bedrywig is in 'n NO_x Vlak III-emissiebeheergebied, anders as 'n emissiebeheergebied beskryf in paragraaf 5.1.2 van hierdie regulasie, en gebou is op of na die datum van aanneming van so 'n emissiebeheergebied, of 'n latere datum soos gespesifiseer in die wysiging wat die NO_x Vlak III-emissiebeheergebied aanwys, wat ook al laaste is.
- 5.2 Die standaardte uiteengesit in paragraaf 5.1.1 van hierdie regulasie is nie van toepassing nie op:
 - (a) 'n mariene dieselenjin geïnstalleer op 'n skip met 'n lengte (l), soos omskryf in regulasie 1.19 van Aanhangsel I tot hierdie Konvensie, van minder as 24 meter wanneer dit spesifiek ontwerp is, en uitsluitlik gebruik word, vir ontspanningsdoeleindes; of
 - (b) 'n mariene dieselenjin wat op 'n skip geïnstalleer is, met 'n gekombineerde naamplaat dieselenjin voortstuwingskrag van minder as 750 kW indien daar, tot bevrediging van die Administrasie, getoon word dat die skip nie aan die standaardte uiteengesit in paragraaf 5.1.1 van hierdie regulasie kan voldoen nie as gevolg van ontwerp- of konstruksiebeperkings van die skip; of
 - (c) 'n mariene dieselenjin geïnstalleer op 'n skip wat voor 1 Januarie 2021 gebou is van minder as 500 bruto tonnemaat, met 'n lengte (l), soos omskryf in regulasie 1.19 van Aanhangsel I tot hierdie Konvensie, van 24 meter of meer wanneer dit spesifiek ontwerp is, en uitsluitlik gebruik word vir, ontspanningsdoeleindes.
- 5.3 Die vlak- en aan/af-status van mariene dieselenjins wat aan boord van 'n skip geïnstalleer is waarop paragraaf 5.1 van hierdie regulasie van toepassing is en wat vir beide Vlak II en Vlak III gesertifiseer is of wat slegs volgens Vlak II gesertifiseer is, moet in sodanige logboek of elektroniese rekordboek aangeteken word soos deur die Administrasie voorgeskryf by binnevaart tot en uitgang van 'n NO_x Vlak III-emissiebeheergebied, of wanneer die aan/af-status binne so 'n gebied verander, tesame met die datum, tyd en posisie van die skip.
- 5.4 Emissies van stikstofoksiede van 'n mariene dieselenjin onderhewig aan paragraaf 5.1 van hierdie regulasie wat plaasvind onmiddellik na bou- en seeproewe van 'n

newly constructed ship, or before and following converting, repairing, and/or maintaining the ship, or maintenance or repair of a Tier II engine or a dual fuel engine when the ship is required to not have gas fuel or gas cargo on board due to safety requirements, for which activities take place in a shipyard or other repair facility located in a NO_x Tier III emission control area are temporarily exempted provided the following conditions are met—

- (a) the engine meets the Tier II NO_x limits; and
- (b) the ship sails directly to or from the shipyard or other repair facility, does not load or unload cargo during the duration of the exemption, and follows any additional specific routing requirements indicated by the port State in which the shipyard or other repair facility is located, if applicable.

5.5 The exemption described in paragraph 5.4 of this regulation applies only for the following period:

- (a) for a newly constructed ship, the period beginning at the time the ship is delivered from the shipyard, including sea trials, and ending at the time the ship directly exits the NO_x Tier III emission control area(s) or, with regard to a ship fitted with a dual fuel engine, the ship directly exits the NO_x Tier III emission control area(s) or proceeds directly to the nearest gas fuel bunkering facility appropriate to the ship located in the NO_x Tier III emission control area(s);
- (b) for a ship with a Tier II engine undergoing conversion, maintenance or repair, the period beginning at the time the ship enters the NO_x Tier III emission control area(s) and proceeds directly to the shipyard or other repair facility, and ending at the time the ship is released from the shipyard or other repair facility and directly exits the NO_x Tier III emission control area(s) after performing sea trials, if applicable; or
- (c) for a ship with a dual fuel engine undergoing conversion, maintenance or repair, when the ship is required to not have gas fuel or gas cargo on board due to safety requirements, the period beginning at the time the ship enters the NO_x Tier III emission control area(s) or when it is degassed in the NO_x Tier III emission control area(s) and proceeds directly to the shipyard or other repair facility, and ending at the time when the ship is released from the shipyard or other repair facility and directly exits the NO_x Tier III emission control area(s) or proceeds directly to the nearest gas fuel bunkering facility appropriate to the ship located in the NO_x Tier III emission control area(s).

Emission control area

6. For the purpose of this regulation, a NO_x Tier III emission control area shall be any sea area, including any port area, designated by the Organization in accordance with the criteria and procedures set forth in appendix III to this Annex. The NO_x Tier III emission control areas are:

- (a) the North American Emission Control Area, which means the area described by the coordinates provided in appendix VII to this Annex;
- (b) the United States Caribbean Sea Emission Control Area, which means the area described by the coordinates provided in appendix VII to this Annex;
- (c) the Baltic Sea Emission Control Area as defined in regulation 1.11.2 of Annex I; and
- (d) the North Sea Emission Control Area as defined in regulation 1.14.6 of Annex V.

Marine diesel engines installed on a ship constructed prior to 1 January 2000

7.1 Notwithstanding paragraph 1.1.1 of this regulation, a marine diesel engine with a power output of more than 5,000 kW and a per cylinder displacement at or above 90 litres installed on a ship constructed on or after 1 January 1990 but prior to 1 January 2000 shall comply with the emission limits set forth in paragraph 7.4 of this regulation, provided that an approved method for that engine has been certified by an Administration of a Party and notification of such certification has been

nuutgeboude skip, of voor en na die ombouing, herstel en/of instandhouding van die skip, of instandhouding of herstel van 'n Tier II-enjin of 'n dubbelbrandstof-enjin wanneer daar van die skip vereis word om nie gasbrandstof of gasvrag aan boord te hê nie weens veiligheidsvereistes, waarvoor aktiwiteite plaasvind in 'n skeepswerf of ander herstelfasiliteit geleë in 'n NO_x Tier III-emissiebeheergebied word tydelik vrygestel mits die volgende voorwaardes nagekom word—

- (a) die enjin voldoen aan die Vlak II NO_x-perke; en
- (b) die skip direk na of van die skeepswerf of ander herstelfasiliteit vaar, nie vrag laai of aflaai gedurende die duur van die vrystelling nie, en voldoen aan enige bykomende spesifieke roetevereistes aangedui deur die hawestaat waarin die skeepswerf of ander herstelfasiliteit geleë is, indien van toepassing.

5.5 Die vrystelling beskryf in paragraaf 5.4 van hierdie regulasie geld slegs vir die volgende tydperk:

- (a) vir 'n nuutgeboude skip, die tydperk wat begin op die tydstip wanneer die skip van die skeepswerf afgelewer word, met inbegrip van seeproewe, en eindig op die tydstip wanneer die skip die NO_x Vlak III-emissiebeheergebied(e) direk verlaat of, met betrekking tot 'n skip wat toegerus is met 'n dubbelbrandstofenjin, verlaat die skip die NO_x Vlak III-emissiebeheergebied(e) direk of gaan direk voort na die naaste gasbrandstofbunkerfasiliteit wat geskik is vir die skip geleë in die NO_x Vlak III-emissiebeheergebied(e);
- (b) vir 'n skip met 'n Vlak II-enjin wat ombouing, instandhouding of herstel ondergaan, die tydperk wat begin wanneer die skip die NO_x Vlak III-emissiebeheergebied(e) binnevaar en direk na die skeepswerf of ander herstelfasiliteit voortgaan, en eindig wanneer die skip van die skeepswerf of ander herstelfasiliteit vrygelaat word en die NO_x Vlak III-emissiebeheergebiede(e) direk verlaat nadat seeproewe uitgevoer is, indien van toepassing; of
- (c) vir 'n skip met 'n dubbelbrandstofenjin wat omskakeling, instandhouding of herstel ondergaan, wanneer daar van die skip vereis word om nie gasbrandstof of gasvrag aan boord te hê nie as gevolg van veiligheidsvereistes, die tydperk wat begin wanneer die skip die NO_x-vlak III-emissiebeheergebied(e) binnevaar of wanneer dit in die NO_x Tier III-emissiebeheergebied(e) ontgas word en direk na die skeepswerf of ander herstelfasiliteit voortgaan, en eindig op die tydstip wanneer die skip van die skeepswerf of ander herstelfasiliteit vrygelaat word en uit die NO_x Vlak III-emissiebeheergebied(e) vaar of direk voortgaan na die naaste gasbrandstofbunkerfasiliteit wat geskik is vir die skip geleë in die NO_x Vlak III-emissiebeheergebied(e).

Emissiebeheergebied

- 6. Vir die doel van hierdie regulasie is 'n NO_x Vlak III-emissiebeheergebied enige seegebied, met inbegrip van enige hawegebied, wat deur die Organisasie aangewys is in ooreenstemming met die kriteria en prosedures soos in bylaag III tot hierdie Aanhangsel uiteengesit. Die NO_x Vlak III-emissiegebiede is:
 - (a) die Noord-Amerikaanse Emissiebeheergebied, met ander woorde die gebied beskryf deur die koördinate wat in bylaag VII tot hierdie Aanhangsel verskaf word;
 - (b) die Verenigde State Karibiese See-emissiebeheergebied, met ander woorde die gebied beskryf deur die koördinate wat in bylaag VII tot hierdie Aanhangsel verskaf word;
 - (c) die Oossee-emissiebeheergebied soos in regulasie 1.11.2 van Aanhangsel I omskryf; en
 - (d) die Noordsee-emissiebeheergebied soos in regulasie 1.14.6 van Aanhangsel V omskryf.

Mariene dieselenjins geïnstalleer op 'n skip wat voor 1 Januarie 2000 gebou is

- 7.1 Ondanks paragraaf 1.1.1 van hierdie regulasie, moet 'n mariene dieselenjin met 'n kraglewering van meer as 5,000 kW en 'n per silinder verplasing van of meer as 90 liter geïnstalleer op 'n skip wat op of na 1 Januarie 1990, maar voor 1 Januarie 2000 gebou is, voldoen aan die emissiegrense uiteengesit in paragraaf 7.4 van hierdie regulasie, met dien verstande dat 'n goedgekeurde metode vir daardie enjin deur 'n Administrasie van 'n Party gesertifiseer is en kennisgewing van sodanige

submitted to the Organization by the certifying Administration. Compliance with this paragraph shall be demonstrated through one of the following—

- (a) installation of the certified approved method, as confirmed by a survey using the verification procedure specified in the approved method file, including appropriate notation on the ship's International Air Pollution Prevention Certificate of the presence of the approved method; or
- (b) certification of the engine confirming that it operates within the limits set forth in paragraph 3, 4, or 5.1.1 of this regulation and an appropriate notation of the engine certification on the ship's International Air Pollution Prevention Certificate.

7.2 Paragraph 7.1 of this regulation shall apply no later than the first renewal survey that occurs 12 months or more after deposit of the notification in paragraph 7.1. If a shipowner of a ship on which an approved method is to be installed can demonstrate to the satisfaction of the Administration that the approved method was not commercially available despite best efforts to obtain it, then that approved method shall be installed on the ship no later than the next annual survey of that ship that falls after the approved method is commercially available.

7.3 With regard to a marine diesel engine with a power output of more than 5,000 kW and a per cylinder displacement at or above 90 litres installed on a ship constructed on or after 1 January 1990, but prior to 1 January 2000, the International Air Pollution Prevention Certificate shall, for a marine diesel engine to which paragraph 7.1 of this regulation applies, indicate one of the following—

- (a) an approved method has been applied pursuant to paragraph 7.1.1 of this regulation;
- (b) the engine has been certified pursuant to paragraph 7.1.2 of this regulation;
- (c) an approved method is not yet commercially available as described in paragraph 7.2 of this regulation; or
- (d) an approved method is not applicable.

7.4 Subject to regulation 3 of this Annex, the operation of a marine diesel engine described in paragraph 7.1 of this regulation is prohibited, except when the emission of nitrogen oxides (calculated as the total weighted emission of NO₂) from the engine is within the following limits, where n = rated engine speed (crankshaft revolutions per minute):

- (a) 17.0 g/kWh when n is less than 130 rpm;
- (b) $45 n^{(-0.2)}$ g/kWh when n is 130 or more but less than 2,000 rpm; and
- (c) 9.8 g/kWh when n is 2,000 rpm or more.

7.5 Certification of an approved method shall be in accordance with chapter 7 of the revised NO_x Technical Code 2008 and shall include verification—

- (a) by the designer of the base marine diesel engine to which the approved method applies that the calculated effect of the approved method will not decrease engine rating by more than 1.0%, increase fuel consumption by more than 2.0% as measured according to the appropriate test cycle set forth in the revised NO_x Technical Code 2008, or adversely affect engine durability or reliability; and
- (b) that the cost of the approved method is not excessive, which is determined by a comparison of the amount of NO_x reduced by the approved method to achieve the standard set forth in paragraph 7.4 of this regulation and the cost of purchasing and installing such approved method.

Certification

8. The revised NO_x Technical Code 2008 shall be applied in the certification, testing and measurement procedures for the standards set forth in this regulation.

sertifisering deur die sertifiseringsadministrasie aan die Organisasie voorgelê is. Voldoening aan hierdie paragraaf moet gedemonstreer word deur een van die volgende—

- (a) installering van die gesertifiseerde goedgekeurde metode, soos bevestig deur 'n opname deur gebruik te maak van die verifiëringsprosedure gespesifiseer in die goedgekeurde metodelêer, met inbegrip van toepaslike aantekening op die skip se Internasionale Lugbesoedelingsvoorkomingsertifikaat dat die goedgekeurde metode teenwoordig is; of
- (b) sertifisering van die enjin wat bevestig dat dit binne die perke uiteengesit in paragraaf 3, 4 of 5.1.1 van hierdie regulasie bedryf en 'n toepaslike notasie van die enjinsertifisering op die skip se Internasionale Lugbesoedelingsvoorkomingsertifikaat.

7.2 Paragraaf 7.1 van hierdie regulasie sal nie later nie as die eerste hernuwingsopname van toepassing wees wat 12 maande of meer na deponering van die kennisgewing in paragraaf 7.1 plaasvind. Indien 'n skeepseienaar van 'n skip waarop 'n goedgekeurde metode geïnstalleer moet word, tot oortuiging van die Administrasie kan aantoon dat die goedgekeurde metode nie kommersieel beskikbaar is nie, ten spyte daarvan dat geen steen onaangeroer gelaat is om dit te bekom, moet daardie goedgekeurde metode op die skip geïnstalleer word nie later nie as die volgende jaarlikse opname van daardie skip sedert die goedgekeurde metode kommersieel beskikbaar geword het.

7.3 Met betrekking tot 'n mariene dieselenjin met 'n kraglewering van meer as 5,000 kW en 'n per silinder verplasing van of meer as 90 liter wat geïnstalleer is op 'n skip wat op of na 1 Januarie 1990, maar voor 1 Januarie 2000, gebou is, moet die Internasionale Lugbesoedelingsvoorkomingsertifikaat vir 'n mariene dieselenjin waarop paragraaf 7.1 van hierdie regulasie van toepassing is, een van die volgende aandui—

- (a) 'n goedgekeurde metode ooreenkomstig paragraaf 7.1.1 van hierdie regulasie is toegepas;
- (b) die enjin ooreenkomstig paragraaf 7.1.2 van hierdie regulasie is gesertifiseer;
- (c) 'n goedgekeurde metode nog nie kommersieel beskikbaar is soos in paragraaf 7.2 van hierdie regulasie beskryf nie; of
- (d) dat 'n goedgekeurde metode nie van toepassing is nie.

7.4 Behoudens regulasie 3 van hierdie Aanhangsel, word die werking van 'n mariene dieselenjin beskryf in paragraaf 7.1 van hierdie regulasie verbied, behalwe wanneer die vrystelling van stikstofoksiede (berekend as die totale geweegde vrystelling van NO_2) van die enjin binne die volgende grense is, waar n = aangeslane enjinspoed (krukas omwentelinge per minuut):

- (a) 17.0 g/kWh wanneer n minder as 130 r.p.m. is;
- (b) $45 n^{(-0.2)}$ g/kWh wanneer n 130 of meer maar minder as 2 000 r.p.m. is; en
- (c) 9.8 g/kWh wanneer n 2,000 r.p.m. of meer is.

7.5 Sertifisering van 'n goedgekeurde metode moet in ooreenstemming met hoofstuk 7 van die hersiene NO_x Tegniese Kode 2008 wees en moet verifiëring insluit—

- (a) deur die ontwerper van die fondasie mariene dieselenjin waarop die goedgekeurde metode van toepassing is dat die berekende effek van die goedgekeurde metode nie enjinaanslag met meer as 1.0% sal verlaag nie, brandstofverbruik met meer as 2.0% sal verhoog soos gemeet volgens die toepaslike toetssiklus uiteengesit in die hersiene NO_x Tegniese Kode 2008 nie, of die enjin se duursaamheid of betroubaarheid nadelig raak nie; en
- (b) dat die koste van die goedgekeurde metode nie buitensporig is nie, wat bepaal word deur 'n vergelyking van die hoeveelheid NO_x verminder deur die goedgekeurde metode om die standaard te bereik soos uiteengesit in paragraaf 7.4 van hierdie regulasie en die koste van die aankoop en installering van sodanige goedgekeurde metode.

Sertifisering

8. Die hersiene NO_x Tegniese Kode 2008 moet toegepas word in die sertifisering-, toets- en metingsprosedures vir die standarde wat in hierdie regulasie uiteengesit word.

9. The procedures for determining NO_x emissions set out in the revised NO_x Technical Code 2008 are intended to be representative of the normal operation of the engine. Defeat devices and irrational emission control strategies undermine this intention and shall not be allowed. This regulation shall not prevent the use of auxiliary control devices that are used to protect the engine and/or its ancillary equipment against operating conditions that could result in damage or failure or that are used to facilitate the starting of the engine.

Regulation 14

Sulphur oxides (SO_x) and particulate matter

General requirements

1. The sulphur content of fuel oil used or carried for use on board a ship shall not exceed 0.50% m/m.
2. The worldwide average sulphur content of residual fuel oil supplied for use on board ships shall be monitored taking into account guidelines developed by the Organization.

Requirements within emission control areas

3. For the purpose of this regulation, an emission control area shall be any sea area, including any port area, designated by the Organization in accordance with the criteria and procedures set forth in appendix III to this Annex. The emission control areas under this regulation are—
 - (a) the Baltic Sea area as defined in regulation 1.11.2 of Annex I of the present Convention;
 - (b) the North Sea area as defined in regulation 1.14.6 of Annex V of the present Convention;
 - (c) the North American Emission Control Area, which means the area described by the coordinates provided in appendix VII to this Annex; and
 - (d) the United States Caribbean Sea Emission Control Area, which means the area described by the coordinates provided in appendix VII to this Annex.
4. While a ship is operating within an emission control area, the sulphur content of fuel oil used on board that ship shall not exceed 0.10% m/m.
5. The sulphur content of fuel oil referred to in paragraph 1 and paragraph 4 of this regulation shall be documented by its supplier as required by regulation 18 of this Annex.
6. Those ships using separate fuel oils to comply with paragraph 4 of this regulation and entering or leaving an emission control area set forth in paragraph 3 of this regulation shall carry a written procedure showing how the fuel oil changeover is to be done, allowing sufficient time for the fuel oil service system to be fully flushed of all fuel oils exceeding the applicable sulphur content specified in paragraph 4 of this regulation prior to entry into an emission control area. The volume of low sulphur fuel oils in each tank as well as the date, time and position of the ship when any fuel oil changeover operation is completed prior to the entry into an emission control area or commenced after exit from such an area shall be recorded in such logbook or electronic record book as prescribed by the Administration.
7. During the first twelve months immediately following entry into force of an amendment designating a specific emission control area under paragraph 3 of this regulation, ships operating in that emission control area are exempt from the requirements in paragraphs 4 and 6 of this regulation and from the requirements of paragraph 5 of this regulation insofar as they relate to paragraph 4 of this regulation.

9. Die prosedures vir die bepaling van NO_x-emissies uiteengesit in die hersiene NO_x Tegniese Kode 2008 is bedoel om verteenwoordigend te wees van die normale werking van die enjin. Verydelingstoestelle en irrasionele emissiebeheerstrategieë ondermyn hierdie voorneme en sal nie toegelaat word nie. Hierdie regulasie verhoed nie die gebruik van hulpbeheertoestelle wat gebruik word om die enjin en/of sy bykomende toerusting te beskerm teen bedryfstoestande wat skade of onklaarraking tot gevolg kan hê of wat gebruik word om die aansit van die enjin te vergemaklik nie.

Regulasie 14

Swaweloksiede (SO_x) en deeltjies

Algemene vereistes

1. Die swaelinhoud van brandolie wat vir gebruik aan boord van 'n skip gebruik of vervoer word, mag nie 0.50% m/m oorskry nie.
2. Die wêreldwye gemiddelde swaelinhoud van oorblywende brandolie wat vir gebruik aan boord van skepe verskaf word, sal gemonitor word met inagneming van riglyne wat deur die Organisasie ontwikkel is.

Vereistes binne emissiebeheergebiede

3. Vir die doel van hierdie regulasie is 'n emissiebeheergebied enige seegebied, met inbegrip van enige hawegebied, wat deur die Organisasie aangewys is in ooreenstemming met die kriteria en prosedures uiteengesit in bylaag III tot hierdie Aanhangsel. Die emissiebeheergebiede onder hierdie regulasie is—
 - (a) die Oossee-gebied soos in regulasie 1.11.2 van Aanhangsel I van hierdie Konvensie omskryf;
 - (b) die Noordsee-gebied soos omskryf in regulasie 1.14.6 van Aanhangsel V van hierdie Konvensie;
 - (c) die Noord-Amerikaanse Emissiebeheergebied, wat beteken die gebied wat deur die koördinate verskaf in bylaag VII tot hierdie Aanhangsel, beskryf word; en
 - (d) die Verenigde State Karibiese See-emissiebeheergebied, wat beteken die gebied beskryf deur die koördinate wat in bylaag VII tot hierdie Aanhangsel verskaf word.
4. Terwyl 'n skip in 'n emissiebeheergebied werk, mag die swaelinhoud van brandolie wat aan boord van daardie skip gebruik word, nie 0.10% m/m oorskry nie.
5. Die swaelinhoud van brandolie waarna in paragraaf 1 en paragraaf 4 van hierdie regulasie verwys word, moet deur die verskaffer gedokumenteer word soos vereis deur regulasie 18 van hierdie Aanhangsel.
6. Daardie skepe wat afsonderlike brandolies gebruik om aan paragraaf 4 van hierdie regulasie te voldoen en 'n emissiebeheergebied soos uiteengesit in paragraaf 3 van hierdie regulasie binnegaan of verlaat, moet 'n skriftelike prosedure dra wat toon hoe die brandolie-omskakeling gedoen moet word, wat voldoende tyd toelaat vir die brandoliediensstelsel om ten volle gespoel te word van alle brandolies wat die toepaslike swaelinhoud gespesifiseer in paragraaf 4 van hierdie regulasie oorskry, voor toegang tot 'n emissiebeheergebied. Die volume lae-swaelbrandolies in elke tenk, sowel as die datum, tyd en posisie van die skip wanneer enige brandolie-omskakelingsoperasie voltooi is voordat 'n emissiebeheergebied binnegevaar is of begin word nadat so 'n gebied verlaat is, moet aangeteken word in sodanige logboek of elektroniese rekordboek soos deur die Administrasie voorgeskryf.
7. Gedurende die eerste twaalf maande onmiddellik na die inwerkingtreding van 'n wysiging wat 'n spesifieke emissiebeheergebied ingevolge paragraaf 3 van hierdie regulasie aanwys, is skepe wat in daardie emissiebeheergebied werk, vrygestel van die vereistes in paragrawe 4 en 6 van hierdie regulasie en van die vereistes van paragraaf 5 van hierdie regulasie in soverre dit betrekking het op paragraaf 4 van hierdie regulasie.

Regulation 15***Volatile organic compounds (VOCs)***

1. If the emissions of VOCs from a tanker are to be regulated in a port or ports or a terminal or terminals under the jurisdiction of a Party, they shall be regulated in accordance with the provisions of this regulation.
2. A Party regulating tankers for VOC emissions shall submit a notification to the Organization. This notification shall include information on the size of tankers to be controlled, the cargoes requiring vapour emission control systems and the effective date of such control. The notification shall be submitted at least six months before the effective date.
3. A Party that designates ports or terminals at which VOC emissions from tankers are to be regulated shall ensure that vapour emission control systems, approved by that Party taking into account the safety standards for such systems developed by the Organization, are provided in any designated port and terminal and are operated safely and in a manner so as to avoid undue delay to a ship.
4. The Organization shall circulate a list of the ports and terminals designated by Parties to other Parties and Member States of the Organization for their information.
5. A tanker to which paragraph 1 of this regulation applies shall be provided with a vapour emission collection system approved by the Administration taking into account the safety standards for such systems developed by the Organization*², and shall use this system during the loading of relevant cargoes. A port or terminal that has installed vapour emission control systems in accordance with this regulation may accept tankers that are not fitted with vapour collection systems for a period of three years after the effective date identified in paragraph 2 of this regulation.
6. A tanker carrying crude oil shall have on board and implement a VOC management plan approved by the Administration. Such a plan shall be prepared taking into account the guidelines developed by the Organization. The plan shall be specific to each ship and shall at least—
 - (a) provide written procedures for minimizing VOC emissions during the loading, sea passage and discharge of cargo;
 - (b) give consideration to the additional VOC generated by crude oil washing;
 - (c) identify a person responsible for implementing the plan; and
 - (d) for ships on international voyages, be written in the working language of the master and officers and, if the working language of the master and officers is not English, French or Spanish, include a translation into one of these languages.
7. This regulation shall also apply to gas carriers only if the types of loading and containment systems allow safe retention of non-methane VOCs on board or their safe return ashore.

Regulation 16***Shipboard incineration***

1. Except as provided in paragraph 4 of this regulation, shipboard incineration shall be allowed only in a shipboard incinerator.
2. Shipboard incineration of the following substances shall be prohibited:
 - (a) residues of cargoes subject to Annex I, II or III or related contaminated packing materials;
 - (b) polychlorinated biphenyls (PCBs);
 - (c) garbage, as defined by Annex V, containing more than traces of heavy metals;
 - (d) refined petroleum products containing halogen compounds;
 - (e) sewage sludge and sludge oil either of which is not generated on board the ship; and

Regulasie 15***Vlugtige organiese verbindings (VOV's)***

1. Indien die vrystellings van VOV vanaf 'n tenkskip geregleer moet word in 'n hawe of hawens of 'n terminaal of terminale onder die jurisdiksie van 'n Party, sal dit in ooreenstemming met die bepalings van hierdie regulasie geregleer word.
2. 'n Party wat tenkskepe reguleer vir VOV-vrystellings, moet 'n kennisgewing aan die Organisasie indien. Hierdie kennisgewing sal inligting insluit oor die grootte van tenkskepe wat beheer moet word, die vragte wat dampemissiebeheerstelsels benodig en die effektiewe datum van sodanige beheer. Die kennisgewing moet ten minste ses maande voor die effektiewe datum ingedien word.
3. 'n Party wat hawens of terminale aanwys waar VOV-vrystellings van tenkskepe geregleer moet word, moet verseker dat dampemissiebeheerstelsels, wat met inagneming van die veiligheidstandaarde vir sodanige stelsels wat deur die Organisasie ontwikkel is, deur daardie Party goedgekeur is, in enige aangewese hawe en terminaal voorsien word en veilig en op 'n wyse bedryf word wat onnodige vertraging vir 'n skip vermy.
4. Die Organisasie moet 'n lys van die hawens en terminale wat deur Partye aangewys is, ter inligting aan ander Partye en Lidstate van die Organisasie sirkuleer.
5. 'n Tenkskip waarop paragraaf 1 van hierdie regulasie van toepassing is, moet voorsien word van 'n stoomversamelingstelsel wat deur die Administrasie goedgekeur is met inagneming van die veiligheidstandaarde vir sodanige stelsels wat deur die Organisasie*² ontwikkel is, en moet hierdie stelsel gebruik tydens die laai van relevante vragte. 'n Hawe of terminaal wat stoombeheerstelsels in ooreenstemming met hierdie regulasie geïnstalleer het, mag tenkskepe aanvaar wat nie met dampopvangstelsels toegerus is nie vir 'n tydperk van drie jaar na die inwerkingtreedingsdatum wat in paragraaf 2 van hierdie regulasie geïdentifiseer is.
6. 'n Tenkskip wat ruolie vervoer, moet 'n VOV-bestuursplan aan boord hê en implementeer wat deur die Administrasie goedgekeur is. So 'n plan word voorberei met inagneming van die riglyne wat deur die Organisasie ontwikkel is. Die plan moet spesifiek vir elke skip wees en moet ten minste—
 - (a) skriftelike prosedures verskaf vir die vermindering van VOV-vrystellings tydens die laai, seepassasie en afvoer van vrag;
 - (b) die bykomende VOV wat deur die was van ruolie gegenereer word, in ag neem;
 - (c) 'n persoon identifiseer wat verantwoordelik is vir die implementering van die plan; en
 - (d) vir skepe op internasionale vaarte, in die werkstaal van die meester en offisiere geskryf wees en, indien die werkstaal van die meester en offisiere nie Engels, Frans of Spaans is nie, 'n vertaling in een van hierdie tale insluit.
7. Hierdie regulasie is op gasdraers van toepassing slegs indien die tipes laai- en inperkingstelsels veilige behoud van nie-metaan VOV's aan boord of hul veilige terugkeer aan wal moontlik maak.

Regulasie 16***Verbranding aan boord***

1. Behalwe soos bepaal in paragraaf 4 van hierdie regulasie, sal verbranding aan boord slegs in 'n aanboordverbrandingsoond toegelaat word.
2. Verbranding aan boord van die volgende stowwe is verbode:
 - (a) oorblyfsels van vragte wat onderhewig is aan Aanhangel I, II of III of verwante besmette verpakkingsmateriaal;
 - (b) polichlorineerde bifeniele (PCB's);
 - (c) vullis, soos omskryf deur Aanhangel V, wat meer as spore van swaarmetale bevat;
 - (d) geraffineerde petroleumprodukte wat halogeenverbindinge bevat;
 - (e) rioolslyk en slykolie wat nie aan boord van die skip gegenereer word nie; en

- (f) exhaust gas cleaning system residues.
3. Shipboard incineration of polyvinyl chlorides (PVCs) shall be prohibited, except in shipboard incinerators for which IMO Type Approval Certificates have been issued.
 4. Shipboard incineration of sewage sludge and sludge oil generated during normal operation of a ship may also take place in the main or auxiliary power plant or boilers, but in those cases, shall not take place inside ports, harbours and estuaries.
 5. Nothing in this regulation neither:
 - (a) affects the prohibition in, or other requirements of, the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972, as amended, and the 1996 Protocol thereto, nor
 - (b) precludes the development, installation and operation of alternative design shipboard thermal waste treatment devices that meet or exceed the requirements of this regulation.
 - 6.1 Except as provided in paragraph 6.2 of this regulation, each incinerator on a ship constructed on or after 1 January 2000 or incinerator that is installed on board a ship on or after 1 January 2000 shall meet the requirements contained in appendix IV to this Annex. Each incinerator subject to this paragraph shall be approved by the Administration taking into account the standard specification for shipboard incinerators developed by the Organization; or
 - 6.2 The Administration may allow exclusion from the application of paragraph 6.1 of this regulation to any incinerator installed on board a ship before 19 May 2005, provided that the ship is solely engaged in voyages within waters subject to the sovereignty or jurisdiction of the State the flag of which the ship is entitled to fly.
 7. Incinerators installed in accordance with the requirements of paragraph 6.1 of this regulation shall be provided with a manufacturer's operating manual, which is to be retained with the unit and which shall specify how to operate the incinerator within the limits described in paragraph 2 of appendix IV of this Annex.
 8. Personnel responsible for the operation of an incinerator installed in accordance with the requirements of paragraph 6.1 of this regulation shall be trained to implement the guidance provided in the manufacturer's operating manual as required by paragraph 7 of this regulation.
 9. For incinerators installed in accordance with the requirements of paragraph 6.1 of this regulation the combustion chamber gas outlet temperature shall be monitored at all times the unit is in operation. Where that incinerator is of the continuous-feed type, waste shall not be fed into the unit when the combustion chamber gas outlet temperature is below 850°C. Where that incinerator is of the batch-loaded type, the unit shall be designed so that the combustion chamber gas outlet temperature shall reach 600°C within five minutes after start-up and will thereafter stabilize at a temperature not less than 850°C.

Regulation 17

Reception facilities

1. Each Party undertakes to ensure the provision of facilities adequate to meet the:
 - (a) needs of ships using its repair ports for the reception of ozone-depleting substances and equipment containing such substances when removed from ships;
 - (b) needs of ships using its ports, terminals or repair ports for the reception of exhaust gas cleaning residues from an exhaust gas cleaning system;

- (f) residu van uitlaatgas-skoonmaakstelsel.
3. Verbranding aan boord van polivinielchloriede (PVC's) is verbode, behalwe in aanboordverbrandingsoonde waarvoor IMO-tipegoedkeuringsertifikate uitgereik is.
 4. Verbranding aan boord van rioolslyk en slykolie wat tydens normale bedryf van 'n skip gegenereer is, kan ook in die hoof- of hulpkragstasie of ketels plaasvind, maar moet in daardie gevalle moet nie binne hawens en riviermondings plaasvind nie.
 5. Niks in hierdie regulasie:
 - (a) raak die verbod in, of ander vereistes van, die Konvensie oor die Voorkoming van Mariene Besoedeling deur Storting van Afval en Ander Materie, 1972, soos gewysig, en die 1996 Protokol daarby nie, en
 - (b) verhinder ook nie die ontwikkeling, installering en bedryf van alternatiewe ontwerp-toestelle vir termiese afvalbehandeling aan boord wat aan die vereistes van hierdie regulasie voldoen of dit oorskry nie.
 - 6.1 Behalwe soos in paragraaf 6.2 van hierdie regulasie bepaal, moet elke verbrandingsoond aan boord van 'n skip wat op of na 1 Januarie 2000 gebou is of verbrandingsoond wat op of na 1 Januarie 2000 aan boord van 'n skip geïnstalleer is, voldoen aan die vereistes vervat in bylaag IV tot hierdie Aanhangel. Elke verbrandingsoond onderworpe aan hierdie paragraaf moet goedgekeur word deur die Administrasie met inagneming van die standaardspesifikasie vir aanboordverbrandingsoonde wat deur die Organisasie ontwikkel is; of
 - 6.2 Die Administrasie kan uitsluiting van die toepassing van paragraaf 6.1 van hierdie regulasie toelaat op enige verbrandingsoond wat voor 19 Mei 2005 aan boord van 'n skip geïnstalleer is, met dien verstande dat die skip uitsluitlik besig is met vaarte binne waters onderhewig aan die soewereiniteit of jurisdiksie van die Staat wie se vlag die skip geregtig is om te hys.
 7. Verbrandingsoonde wat ooreenkomstig die vereistes van paragraaf 6.1 van hierdie regulasie geïnstalleer is, moet voorsien word van 'n vervaardiger se bedryfshandleiding, wat saam met die eenheid gehou moet word en wat spesifiseer hoe om die verbrandingsoond te gebruik binne die perke beskryf in paragraaf 2 van bylaag IV van hierdie Aanhangel.
 8. Personeel wat verantwoordelik is vir die werking van 'n verbrandingsoond wat in ooreenstemming met die vereistes van paragraaf 6.1 van hierdie regulasie geïnstalleer is, moet opgelei word om die riglyne wat in die vervaardiger se bedryfshandleiding verskaf word, te implementeer soos vereis deur paragraaf 7 van hierdie regulasie.
 9. Vir verbrandingsoonde wat in ooreenstemming met die vereistes van paragraaf 6.1 van hierdie regulasie geïnstalleer is, moet die verbrandingskamer-gasuitlaatemperatuur te alle tye gemonitor word wanneer die eenheid in werking is. Waar daardie verbrandingsoond van die deurlopende-voertipe is, mag afval nie in die eenheid ingevoer word wanneer die verbrandingskamer-gasuitlaatemperatuur onder 850°C is nie. Waar daardie verbrandingsoond van die stapeloond tipe is, moet die eenheid so ontwerp word dat die verbrandingskamer-gasuitlaatemperatuur binne vyf minute na aanskakeling 600°C sal bereik en daarna sal stabiliseer by 'n temperatuur van minstens 850°C.

Regulasie 17

Ontvangsfasiliteite

1. Elke Party onderneem om die voorsiening van fasiliteite te verseker wat voldoende is om te voldoen aan:
 - (a) behoeftes van skepe wat sy herstellpoorte gebruik vir die ontvangs van osoonafbrekende stowwe en toerusting wat sulke stowwe bevat wanneer dit van skepe verwyder word;
 - (b) behoeftes van skepe wat sy hawens, terminale of herstelhawens gebruik vir die ontvangs van uitlaatgasskoonmaakreste van 'n uitlaatgasskoonmaakstelsel;

without causing undue delay to ships, and

(c) needs in ship-breaking facilities for the reception of ozone- depleting substances and equipment containing such substances when removed from ships.

2. Small Island Developing States may satisfy the requirements in paragraph 1 of this regulation through regional arrangements when, because of those States' unique circumstances, such arrangements are the only practical means to satisfy these requirements. Parties participating in a regional arrangement shall develop a Regional Reception Facilities Plan, taking into account the guidelines developed by the Organization.

The Government of each Party participating in the arrangement shall consult with the Organization for circulation to the Parties of the present Convention:

- (a) how the Regional Reception Facilities Plan takes into account the Guidelines;
- (b) particulars of the identified Regional Ships Waste Reception Centres; and
- (c) particulars of those ports with only limited facilities.

3. If a particular port or terminal of a Party is – taking into account the guidelines to be developed by the Organization – remotely located from, or lacking in, the industrial infrastructure necessary to manage and process those substances referred to in paragraph 1 of this regulation and therefore cannot accept such substances, then the Party shall inform the Organization of any such port or terminal so that this information may be circulated to all Parties and Member States of the Organization for their information and any appropriate action. Each Party that has provided the Organization with such information shall also notify the Organization of its ports and terminals where reception facilities are available to manage and process such substances.
4. Each Party shall notify the Organization for transmission to the Members of the Organization of all cases where the facilities provided under this regulation are unavailable or alleged to be inadequate.

Regulation 18

Fuel oil availability and quality

Fuel oil availability

1. Each Party shall take all reasonable steps to promote the availability of fuel oils that comply with this Annex and inform the Organization of the availability of compliant fuel oils in its ports and terminals.
- 2.1 If a ship is found by a Party not to be in compliance with the standards for compliant fuel oils set forth in this Annex, the competent authority of the Party is entitled to require the ship to—
 - (a) present a record of the actions taken to attempt to achieve compliance; and
 - (b) provide evidence that it attempted to purchase compliant fuel oil in accordance with its voyage plan and, if it was not made available where planned, that attempts were made to locate alternative sources for such fuel oil and that despite best efforts to obtain compliant fuel oil, no such fuel oil was made available for purchase.
- 2.2 The ship should not be required to deviate from its intended voyage or to delay unduly the voyage in order to achieve compliance.
- 2.3 If a ship provides the information set forth in paragraph 2.1 of this regulation, a Party shall take into account all relevant circumstances and the evidence presented to determine the appropriate action to take, including not taking control measures.
- 2.4 A ship shall notify its Administration and the competent authority of the relevant port of destination when it cannot purchase compliant fuel oil.

sonder om onnodige vertraging vir skepe te veroorsaak, en

(c) behoeftes in skepsbreekfasiliteite vir die ontvangs van osoonafbrekende stowwe en toerusting wat sulke stowwe bevat wanneer dit van skepe verwyder word.

2. Klein-eiland-ontwikkelende State kan aan die vereistes in paragraaf 1 van hierdie regulasie voldoen deur streekreëlins wanneer, as gevolg van daardie state se unieke omstandighede, sulke reëlins die enigste praktiese manier is om aan hierdie vereistes te voldoen. Partye wat aan 'n streekreëling deelneem, sal 'n Streekontvangsfasiliteiteplan ontwikkel, met inagneming van die riglyne wat deur die Organisasie ontwikkel is.

Die Regering van elke Party wat aan die reëling deelneem, sal met die Organisasie oorleg pleeg vir sirkulasie aan die Partye van hierdie Konvensie:

- (a) hoe die Streekontvangsfasiliteiteplan die Riglyne in ag neem;
- (b) besonderhede van die geïdentifiseerde streekskeepsafvalopvangsentrums; en
- (c) besonderhede van daardie hawens wat slegs beperkte fasiliteite het.

3. Indien 'n spesifieke hawe of terminaal van 'n Party – met inagneming van die riglyne wat deur die Organisasie ontwikkel moet word – vêr weg is van, of ontbreek in, die nywerheidsinfrastruktuur wat nodig is om daardie stowwe waarna in paragraaf 1 van hierdie regulasie verwys word, te bestuur en te verwerk en daarom nie sodanige stowwe kan aanvaar nie, sal die Party die Organisasie in kennis stel van enige sodanige hawe of terminaal sodat hierdie inligting aan alle Partye en Lidstate van die Organisasie gesirkuleer kan word vir hul inligting en enige toepaslike optrede. Elke Party wat sodanige inligting aan die Organisasie verskaf het, moet ook die Organisasie in kennis stel van sy hawens en terminale waar ontvangsfasiliteite beskikbaar is om sulke stowwe te bestuur en te verwerk.
4. Elke Party moet die Organisasie in kennis stel vir oordrag aan die Lede van die Organisasie van alle gevalle waar die fasiliteite wat ingevolge hierdie regulasie voorsien word, onbeskikbaar is of na bewering onvoldoende is.

Regulasie 18

Beskikbaarheid en gehalte van brandolie

Brandoliebeskikbaarheid

1. Elke Party moet alle redelike stappe doen om die beskikbaarheid van brandolies wat aan hierdie Aanhangsel voldoen, te bevorder en die Organisasie in kennis stel van die beskikbaarheid van voldoende brandolies in sy hawens en terminale.
- 2.1 Indien 'n Party vind dat 'n skip nie aan die standaard vir voldoende brandolies luidens hierdie Aanhangsel voldoen nie, is die bevoegde owerheid van die Party daarop geregtig om van die skip te vereis om—
 - (a) 'n rekord voor te lê van die stappe wat gedoen is om voldoening te probeer bereik; en
 - (b) bewys te lewer dat die skip gepoog het om brandolie aan te koop ooreenkomstig sy reisplan en, indien dit nie beskikbaar gestel is waar beplan nie, dat pogings aangewend is om alternatiewe bronne vir sodanige brandolie op te spoor en dat ten spyte van die beste pogings om voldoende brandolie te verkry, geen sodanige brandolie vir aankoop beskikbaar gestel is nie.
- 2.2 Daar moet nie van die skip vereis word om van sy voorgenome vaart af te wyk of om die vaart onnodig te vertraag ten einde voldoening te bereik nie.
- 2.3 Indien 'n skip die inligting verskaf soos uiteengesit in paragraaf 2.1 van hierdie regulasie, moet 'n Party alle relevante omstandighede en die bewyse wat aangebied word, in ag neem om te bepaal watter gepaste aksie geneem moet word, insluitend om nie beheermaatreëls te neem nie.
- 2.4 'n Skip moet sy Administrasie en die bevoegde owerheid van die betrokke bestemmingshawes in kennis stel wanneer hy nie voldoende brandolie kan koop nie.

- 2.5 A Party shall notify the Organization when a ship has presented evidence of the non-availability of compliant fuel oil.

Fuel oil quality

3. Fuel oil for combustion purposes delivered to and used on board ships to which this Annex applies shall meet the following requirements—
- (a) except as provided in paragraph 3.2 of this regulation—
 - (i) the fuel oil shall be blends of hydrocarbons derived from petroleum refining. This shall not preclude the incorporation of small amounts of additives intended to improve some aspects of performance;
 - (ii) the fuel oil shall be free from inorganic acid; and
 - (iii) the fuel oil shall not include any added substance or chemical waste that—
 - (aa) jeopardizes the safety of ships or adversely affects the performance of the machinery, or
 - (bb) is harmful to personnel, or
 - (cc) contributes overall to additional air pollution.
 - (b) fuel oil for combustion purposes derived by methods other than petroleum refining shall not—
 - (i) exceed the applicable sulphur content set forth in regulation 14 of this Annex;
 - (ii) cause an engine to exceed the applicable NO_x emission limit set forth in paragraphs 3, 4, 5.1.1 and 7.4 of regulation 13;
 - (iii) contain inorganic acid; or
 - (iv) jeopardize the safety of ships or adversely affect the performance of the machinery, or
 - (v) be harmful to personnel, or
 - (vi) contribute overall to additional air pollution.
4. This regulation does not apply to coal in its solid form or nuclear fuels. Paragraphs 5, 6, 7.1, 7.2, 8.1, 8.2, 9.2, 9.3, and 9.4 of this regulation do not apply to gas fuels such as liquified natural gas, compressed natural gas or liquified petroleum gas. The sulphur content of gas fuels delivered to a ship specifically for combustion purposes on board that ship shall be documented by the supplier.
5. For each ship subject to regulations 5 and 6 of this Annex, details of fuel oil for combustion purposes delivered to and used on board shall be recorded by means of a bunker delivery note that shall contain at least the information specified in appendix V to this Annex.
6. The bunker delivery note shall be kept on board the ship in such a place as to be readily available for inspection at all reasonable times. It shall be retained for a period of three years after the fuel oil has been delivered on board.
- 7.1 The competent authority of a Party may inspect the bunker delivery notes on board any ship to which this Annex applies while the ship is in its port or offshore terminal, may make a copy of each delivery note, and may require the master or person in charge of the ship to certify that each copy is a true copy of such bunker delivery note. The competent authority may also verify the contents of each note through consultations with the port where the note was issued.
- 7.2 The inspection of the bunker delivery notes and the taking of certified copies by the competent authority under this paragraph shall be performed as expeditiously as possible without causing the ship to be unduly delayed.
- 8.1 The bunker delivery note shall be accompanied by a representative sample of the fuel oil delivered taking into account guidelines developed by the Organization. The sample is to be sealed and signed by the supplier's representative and the master or officer in charge of the bunker operation on completion of bunkering operations and retained under the ship's control until the fuel oil is substantially

- 2.5 'n Party moet die Organisasie in kennis stel wanneer 'n skip bewyse gelewer het van die nie-beskikbaarheid van voldoende brandolie.

Brandoliegehalte

3. Brandolie vir verbrandingsdoeleindes gelewer aan en gebruik aan boord van skepe waarop hierdie Aanhangsel van toepassing is, moet aan die volgende vereistes voldoen—
- (a) behalwe soos bepaal in paragraaf 3.2 van hierdie regulasie—
- (i) moet die brandolie mengsels wees van koolwaterstowwe afkomstig van petroleumraffinerie. Dit belet nie die inkorporering van klein hoeveelhede bymiddels wat bedoel is om sekere aspekte van werkverrigting te verbeter nie;
 - (ii) moet die brandolie vry van anorganiese suur wees; en
 - (iii) moet die brandolie geen bygevoegde stof of chemiese afval insluit wat—
 - (aa) die veiligheid van skepe in gevaar stel of die werkverrigting van die masjinerie nadelig beïnvloed, of
 - (bb) vir personeel skadelik is, of
 - (cc) in die algemeen bydra tot bykomende lugbesoedeling nie.
- (b) brandolie vir verbrandingsdoeleindes verkry deur ander metodes as petroleumraffinerie, moet nie—
- (i) die toepaslike swaelinhoud soos uiteengesit in regulasie 14 van hierdie Aanhangsel oorskry nie;
 - (ii) veroorsaak dat 'n enjin die toepaslike NO_x-emissiegrens soos uiteengesit in paragrawe 3, 4, 5.1.1 en 7.4 van regulasie 13 oorskry nie;
 - (iii) anorganiese suur bevat nie; of
 - (iv) die veiligheid van skepe in gevaar stel of die werkverrigting van die masjinerie nadelig beïnvloed nie, of
 - (v) skadelik vir personeel wees nie, of
 - (vi) oor die algemeen tot bykomende lugbesoedeling bydra nie.
4. Hierdie regulasie is nie van toepassing op steenkool in die vaste vorm of op kernbrandstowwe nie. Paragrawe 5, 6, 7.1, 7.2, 8.1, 8.2, 9.2, 9.3 en 9.4 van hierdie regulasie is nie van toepassing op gasbrandstowwe soos vloeibare aardgas, saamgeperste aardgas of vloeibare petroleumgas nie. Die swaelinhoud van gasbrandstof wat spesifiek vir verbrandingsdoeleindes aan boord van daardie skip aan 'n skip gelewer word, moet deur die verskaffer gedokumenteer word.
5. Vir elke skip wat aan regulasies 5 en 6 van hierdie Aanhangsel onderhewig is, moet besonderhede van brandolie vir verbrandingsdoeleindes wat aan boord gelewer en gebruik word, aangeteken word deur middel van 'n bunkerafleweringnota wat ten minste die inligting bevat wat in bylaag V tot hierdie Aanhangsel gespesifiseer word.
6. Die bunkerafleweringnota moet aan boord van die skip gehou word op so 'n plek dat dit gereadig beskikbaar is vir inspeksie te alle redelike tye. Dit moet vir 'n tydperk van drie jaar behou word nadat die brandolie aan boord gelewer is.
- 7.1 Die bevoegde owerheid van 'n Party kan die bunkerafleweringnotas aan boord van enige skip waarop hierdie Aanhangsel van toepassing is, inspekteer terwyl die skip in sy hawe of buitelandse terminaal is, kan 'n afskrif van elke afleweringnota maak, en mag vereis dat die meester of persoon in beheer van die skip sertifiseer dat elke afskrif 'n ware afskrif van sodanige bunkerafleweringnota is. Die bevoegde owerheid kan ook die inhoud van elke nota verifieer deur oorlegplegings met die hawe waar die nota uitgereik is.
- 7.2 Die inspeksie van die bunkerafleweringnotas en die neem van gesertifiseerde afskrifte deur die bevoegde owerheid kragtens hierdie paragraaf moet so spoedig moontlik uitgevoer word sonder dat die skip onnodig vertraag word.
- 8.1 Die bunkerafleweringnota moet vergesel word van 'n verteenwoordigende monster van die brandolie wat gelewer is, met inagneming van riglyne wat deur die Organisasie ontwikkel is. Die monster moet verseël en onderteken word deur die verskaffer se verteenwoordiger en die meester of beampte in beheer van die bunkeroperasie na voltooiing van bunkeroperasies en onder die skip se beheer

consumed, but in any case for a period of not less than 12 months from the time of delivery.

- 8.2 If an Administration requires the representative sample to be analysed, it shall be done in accordance with the verification procedure set forth in appendix VI to determine whether the fuel oil meets the requirements of this Annex.
9. Parties undertake to ensure that appropriate authorities designated by them:
- (a) maintain a register of local suppliers of fuel oil;
 - (b) require local suppliers to provide the bunker delivery note and sample as required by this regulation, certified by the fuel oil supplier that the fuel oil meets the requirements of regulations 14 and 18 of this Annex;
 - (c) require local suppliers to retain a copy of the bunker delivery note for at least three years for inspection and verification by the port State as necessary;
 - (d) take action as appropriate against fuel oil suppliers that have been found to deliver fuel oil that does not comply with that stated on the bunker delivery note;
 - (e) inform the Administration of any ship receiving fuel oil found to be non-compliant with the requirements of regulation 14 or 18 of this Annex; and
 - (f) inform the Organization for transmission to Parties and Member States of the Organization of all cases where fuel oil suppliers have failed to meet the requirements specified in regulations 14 or 18 of this Annex.
10. In connection with port State inspections carried out by Parties, the Parties further undertake to—
- (a) inform the Party or non-Party under whose jurisdiction a bunker delivery note was issued of cases of delivery of non-compliant fuel oil, giving all relevant information; and
 - (b) ensure that remedial action as appropriate is taken to bring non-compliant fuel oil discovered into compliance.
11. For every ship of 400 gross tonnage and above on scheduled services with frequent and regular port calls, an Administration may decide after application and consultation with affected States that compliance with paragraph 6 of this regulation may be documented in an alternative manner that gives similar certainty of compliance with regulations 14 and 18 of this Annex.

Chapter 4

Regulations on energy efficiency for ships

Regulation 19

Application

1. This chapter shall apply to all ships of 400 gross tonnage and above.
2. The provisions of this chapter shall not apply to:
 - (a) ships solely engaged in voyages within waters subject to the sovereignty or jurisdiction of the State the flag of which the ship is entitled to fly. However, each Party should ensure, by the adoption of appropriate measures, that such ships are constructed and act in a manner consistent with the requirements of chapter 4 of this Annex, so far as is reasonable and practicable.
 - (b) ships not propelled by mechanical means, and platforms including FPSOs and FSUs and drilling rigs, regardless of their propulsion.
3. Regulations 20 and 21 of this Annex shall not apply to ships which have non-conventional propulsion, except that regulations 20 and 21 shall apply to cruise passenger ships having non-conventional propulsion and LNG carriers having conventional or non-conventional propulsion, delivered on or after 1

gehou word totdat die brandolie aansienlik verbruik is, maar in elk geval vir 'n tydperk van nie minder nie as 12 maande vanaf die tyd van aflewering.

- 8.2 Indien 'n Administrasie vereis dat die verteenwoordigende monster ontleed word, moet dit gedoen word in ooreenstemming met die verifiëringsprosedure wat uiteengesit word in bylaag VI om te bepaal of die brandolie aan die vereistes van hierdie Aanhangsel voldoen.
9. Partye onderneem om te verseker dat toepaslike owerhede deur hulle aangewys:
- (a) 'n register van plaaslike verskaffers van brandolie byhou;
 - (b) van plaaslike verskaffers vereis om die bunkerafleweringnota en monster te verskaf soos deur hierdie regulasie vereis, gesertifiseer deur die brandolieverskaffer dat die brandolie aan die vereistes van regulasies 14 en 18 van hierdie Aanhangsel voldoen;
 - (c) van plaaslike verskaffers vereis om 'n afskrif van die bunkerafleweringnota vir ten minste drie jaar te hou vir inspeksie en verifikasie deur die hawestaat soos nodig;
 - (d) toepaslik optree teen brandolieverskaffers wat brandolie gelever het wat nie ooreenstem met dit wat op die bunkerafleweringnota vermeld is nie;
 - (e) die Administrasie in kennis stel van enige skip wat brandolie ontvang wat bevind word dat dit nie aan die vereistes van regulasie 14 of 18 van hierdie Aanhangsel voldoen nie; en
 - (f) die Organisasie vir oordrag aan Partye en Lidstate van die Organisasie in kennis stel van alle gevalle waar brandolieverskaffers versuim het om te voldoen aan die vereistes wat in regulasies 14 of 18 van hierdie Aanhangsel gespesifiseer is.
10. In verband met hawestaatinspeksies wat deur partye uitgevoer word, onderneem die partye verder om—
- (a) die Party of nie-Party onder wie se jurisdiksie 'n bunkerafleweringnota uitgereik is in kennis te stel van gevalle waar nie-voldoenende brandolie afgelewer is, met alle relevante inligting; en
 - (b) te verseker dat toepaslike regstellende stappe gedoen word om nie-voldoenende brandolie wat ontdek is, in ooreenstemming te bring.
11. Vir elke skip van 400 bruto tonnemaat en meer wat op geskeduleerde dienste met baie en gereelde hawe besoeke, kan 'n Administrasie, na aansoek en oorleg met geraakte State, besluit dat voldoening aan paragraaf 6 van hierdie regulasie gedokumenteer kan word op 'n alternatiewe wyse wat soortgelyke sekerheid gee dat aan regulasies 14 en 18 van hierdie Aanhangsel voldoen sal word.

Hoofstuk 4

Regulasies oor energiedoeltreffendheid vir skepe

Regulasie 19

Toepassing

1. Hierdie hoofstuk is van toepassing op alle skepe van 400 bruto tonnemaat en meer.
2. Die bepalings van hierdie hoofstuk is nie van toepassing nie op:
 - (a) skepe wat uitsluitlik besig is met vaarte binne waters onderhewig aan die soewereiniteit of jurisdiksie van die Staat wie se vlag daardie skepe geregtig is om te hys. Elke Party moet egter verseker, deur die aanneming van gepaste maatreëls, dat sulke skepe gebou is en op 'n wyse optree wat ooreenstem met die vereistes van hoofstuk 4 van hierdie Aanhangsel, sover dit redelik en prakties is.
 - (b) skepe wat nie deur meganiese middele aangedryf word nie, en platforms, met inbegrip van FPSO's en FSU's en boortuie, ongeag hul aandrywing.
3. Regulasies 20 en 21 van hierdie Aanhangsel is nie van toepassing op skepe wat nie-konvensionele aandrywing het nie, behalwe dat regulasies 20 en 21 van toepassing is op passasierskepe met nie-konvensionele aandrywing en VAG-draers met konvensionele of nie-konvensionele aandrywing, gelever op of na 1

September 2019, as defined in paragraph 43 of regulation 2. Regulations 20 and 21 shall not apply to category A ships as defined in the Polar Code.

4. Notwithstanding the provisions of paragraph 1 of this regulation, the Administration may waive the requirement for a ship of 400 gross tonnage and above from complying with regulations 20 and 21 of this Annex.
5. The provision of paragraph 4 of this regulation shall not apply to ships of 400 gross tonnage and above—
 - (a) for which the building contract is placed on or after 1 January 2017; or
 - (b) in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2017; or
 - (c) the delivery of which is on or after 1 July 2019; or
 - (d) in cases of a major conversion of a new or existing ship, as defined in regulation 2.24 of this Annex, on or after 1 January 2017, and in which regulations 5.4.2 and 5.4.3 of this Annex apply.
6. The Administration of a Party to the present Convention which allows application of paragraph 4, or suspends, withdraws or declines the application of that paragraph, to a ship entitled to fly its flag shall forthwith communicate to the Organization for circulation to the Parties to the present Protocol particulars thereof, for their information.

Regulation 20

Attained Energy Efficiency Design Index (Attained EEDI)

1. The attained EEDI shall be calculated for—
 - (a) each new ship;
 - (b) each new ship which has undergone a major conversion; and
 - (c) each new or existing ship which has undergone a major conversion, that is so extensive that the ship is regarded by the Administration as a newly constructed ship,which falls into one or more of the categories in regulations 2.25 to 2.35, 2.38 and 2.39 of this Annex. The attained EEDI shall be specific to each ship and shall indicate the estimated performance of the ship in terms of energy efficiency, and be accompanied by the EEDI technical file that contains the information necessary for the calculation of the attained EEDI and that shows the process of calculation. The attained EEDI shall be verified, based on the EEDI technical file, either by the Administration or by any organization duly authorized by it.
2. The attained EEDI shall be calculated taking into account the guidelines developed by the Organization.

Regulation 21

Required EEDI

1. For each—
 - (a) new ship;
 - (b) new ship which has undergone a major conversion; and
 - (c) new or existing ship which has undergone a major conversion that is so extensive that the ship is regarded by the Administration as a newly constructed ship,which falls into one of the categories defined in regulations 2.25 to 2.31, 2.33 to 2.35, 2.38 and 2.39 and to which this chapter is applicable, the attained EEDI shall be as follows:
 - $\text{Attained EEDI} \leq \text{Required EEDI} = (1 - X/100) \times \text{reference line value}$ where X is the reduction factor specified in Table 1 for the required EEDI compared to the EEDI reference line.
2. For each new and existing ship that has undergone a major conversion which is so extensive that the ship is regarded by the Administration as a newly constructed ship, the attained EEDI shall be calculated and meet the requirement of paragraph

September 2019, soos omskryf in paragraaf 43 van regulasie 2. Regulasies 20 en 21 is nie van toepassing op kategorie-A skepe soos omskryf in die Poolkode nie.

4. Ongeag die bepalings van paragraaf 1 van hierdie regulasie, kan die Administrasie afstand doen van die vereiste vir 'n skip van 400 bruto tonnemaat en meer om aan regulasies 20 en 21 van hierdie Aanhangsel te voldoen.
5. Die bepaling van paragraaf 4 van hierdie regulasie is nie van toepassing nie op skepe van 400 bruto tonnemaat en meer—
 - (a) waarvoor die boukontrak op of na 1 Januarie 2017 geplaas is; of
 - (b) in die afwesigheid van 'n boukontrak waarvan die kiel gelê is of wat op of na 1 Julie 2017 in 'n soortgelyke stadium van konstruksie is; of
 - (c) waarvan die aflewering op of na 1 Julie 2019 is; of
 - (d) in gevalle van 'n groot ombouing van 'n nuwe of bestaande skip, soos omskryf in regulasie 2.24 van hierdie Aanhangsel, op of na 1 Januarie 2017, en waarin regulasies 5.4.2 en 5.4.3 van hierdie Aanhangsel van toepassing is.
6. Die Administrasie van 'n Party tot hierdie Konvensie wat toepassing van paragraaf 4 toelaat, of die toepassing van daardie paragraaf opskort, terugtrek of weier, aan 'n skip wat geregtig is om sy vlag te hys, moet onmiddellik besonderhede daarvan aan die Organisasie kommunikeer vir sirkulasie aan die Partye tot die huidige Protokol, vir hulle inligting.

Regulasie 20

Bereikte energiedoeltreffendheidontwerpindeks (Bereikte EDOI)

1. Die bereikte EDOI moet bereken word vir—
 - (a) elke nuwe skip;
 - (b) elke nuwe skip wat 'n groot ombouing ondergaan het; en
 - (c) elke nuwe of bestaande skip wat 'n groot ombouing ondergaan het, wat so omvangryk is dat die skip deur die Administrasie as 'n nuutgeboude skip beskou word,wat in een of meer van die kategorieë in regulasies 2.25 tot 2.35, 2.38 en 2.39 van hierdie Aanhangsel val. Die bereikte EDOI moet spesifiek tot elke skip wees en moet die beraamde werkverrigting van die skip ten opsigte van energiedoeltreffendheid aandui, en moet vergesel wees van die EDOI tegniese lêer wat die inligting bevat wat nodig is vir die berekening van die bereikte EDOI en wat die proses van berekening aandui. Die bereikte EDOI moet geverifieer word, op grond van die EDOI tegniese lêer, hetsy deur die Administrasie of deur enige organisasie wat behoorlik deur die Administrasie gemagtig is.
2. Die bereikte EDOI word bereken met inagneming van die riglyne wat deur die Organisasie ontwikkel is.

Regulasie 21

Vereiste EDOI

1. Vir elke—
 - (a) nuwe skip;
 - (b) nuwe skip wat 'n groot ombouing ondergaan het; en
 - (c) nuwe of bestaande skip wat 'n groot ombouing ondergaan het wat so omvangryk is dat die skip deur die Administrasie as 'n nuutgeboude skip beskou word,wat in een van die kategorieë val wat in regulasies 2.25 tot 2.31, 2.33 tot 2.35, 2.38 en 2.39 omskryf word en waarop hierdie hoofstuk van toepassing is, sal die bereikte EDOI soos volg wees:
 - $EDOI_{\text{bereik}} \leq Vereiste\ EDOI = (1 - X/100) \times \text{verwysingslynwaarde}$ waar X die reduksiefaktor is wat in Tabel 1 gespesifiseer word vir die vereiste EDOI in vergelyking met die EDOI-verwysingslyn.
2. Vir elke nuwe en bestaande skip wat 'n groot ombouing ondergaan het wat so omvangryk is dat die skip deur die Administrasie as 'n nuutgeboude skip beskou word, moet die bereikte EDOI bereken word en voldoen aan die vereiste van

21.1 with the reduction factor applicable corresponding to the ship type and size of the converted ship at the date of the contract of the conversion, or in the absence of a contract, the commencement date of the conversion.

Table 1
Reduction factors (in percentage) for the EEDI relative to the EEDI reference line

Ship Type	Size	Phase 0 1 Jan 2013– 31 Dec 2014	Phase 1 1 Jan 2015– 31 Dec 2019	Phase 2 1 Jan 2020– 31 Dec 2024	Phase 3 1 Jan 2025 and onwards
Bulk carrier	20,000 DWT and above	0	10	20	30
	10,000 – 20,000 DWT	n/a	0-10	0-20*	0-30*
Gas carrier	10,000 DWT and above	0	10	20	30
	2,000 – 10,000 DWT	n/a	0-10*	0-20*	0-30*
Tanker	20,000 DWT and above	0	10	20	30
	4,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*
Container ship	15,000 DWT and above	0	10	20	30
	10,000 – 15,000 DWT	n/a	0-10*	0-20*	0-30*
General Cargo ships	15,000 DWT and above	0	10	15	30
	3,000 – 15,000 DWT	n/a	0-10*	0-15*	0-30*
Refrigerated cargo carrier	5,000 DWT and above	0	10	15	30
	3,000 – 5,000 DWT	n/a	0-10*	0-15*	0-30*
Combination carrier	20,000 DWT and above	0	10	20	30
	4,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*
LNG carrier	10,000 DWT and above	n/a	10**	20	30
Ro-ro cargo ship (vehicle carrier)	10,000 DWT and above	n/a	5**	15	30
Ro-ro cargo ship	2,000 DWT and above	n/a	5**	20	30
	1,000 – 2,000 DWT	n/a	0-5*,**	0-20*	0-30*
Ro-ro passenger ship	1,000 DWT and above	n/a	5**	20	30
	250 – 1,000 DWT	n/a	0-5*,**	0-20*	0-30*
Cruise passenger ship having non-conventional propulsion	85,000 GT and above	n/a	5**	20	30
	25,000 – 85,000 GT	n/a	0-5*,**	0-20*	0-30*

3. The reference line values shall be calculated as follows:
- Reference line value = $a \cdot b^{-c}$ where a, b and c are the parameters given in Table 2.

paragraaf 21.1 met die toepaslike reduksiefaktor. wat ooreenstem met die skeepstipe en grootte van die omgeboude skip op die datum van die kontrak van die omskepping, of in die afwesigheid van ’n kontrak, die aanvangsdatum van die omskepping.

Tabel 1

Reduksiefaktore (in persentasie) vir die EDOI relatief tot die EDOI verwysingslyn

Skiptipe	Grootte	Fase 0 1 Jan 2013– 31 Des 2014	Fase 1 1 Jan 2015– 31 Des 2019	Fase 2 1 Jan 2020– 31 Des 2024	Fase 3 1 Jan 2025 en daarna
Massadraer	20,000 DGT en meer	0	10	20	30
	10,000 –20,000 DGT	n.v.t.	0-10	0-20*	0-30*
Gasdraer	10,000 DGT en meer	0	10	20	30
	2,000 – 10,000 DGT	n.v.t.	0-10*	0-20*	0-30*
Tenkskip	20,000 DGT en meer	0	10	20	30
	4,000 – 20,000 DGT	n.v.t.	0-10*	0-20*	0-30*
Houerskip	15,000 DGT en meer	0	10	20	30
	10,000 – 15,000 DGT	n.v.t.	0-10*	0-20*	0-30*
Algemene vragškepe	15,000 DGT en meer	0	10	15	30
	3,000 – 15,000 DGT	n.v.t.	0-10*	0-15*	0-30*
Koelhouer- vragskip	5,000 DGT en meer	0	10	15	30
	3,000 – 5,000 DGT	n.v.t.	0-10*	0-15*	0-30*
Kombinasiedraer	20,000 DGT en meer	0	10	20	30
	4,000 – 20,000 DGT	n.v.t.	0-10*	0-20*	0-30*
VAG-draer	10,000 DGT en meer	n.v.t.	10**	20	30
Ro-ra-vragskip (voertuigdraer)	10,000 DGT en meer	n.v.t.	5**	15	30
Ro-ra- passasierskip	2,000 DGT en meer	n.v.t.	5**	20	30
	1,000 – 2,000 DGT	n.v.t.	0-5*,**	0-20*	0-30*
Ro-ra- passasierskip	1,000 DGT en meer	n.v.t.	5**	20	30
	250 – 1,000 DGT	n.v.t.	0-5*,**	0-20*	0-30*
Plesierboot met nie- konvensionele aandrywing	85,000 BT en meer	n.v.t.	5**	20	30
	25,000 – 85,000 BT	n.v.t.	0-5*,**	0-20*	0-30*

3. Die verwysingslynwaardes sal soos volg bereken word:
- Verwysingslynwaarde = $a \cdot b^{-c}$ waar a, b en c die parameters is wat in Tabel 2 gegee word.

Table 2

Parameters for determination of reference values for the different ship types

Ship type defined in regulation 2	A	B	C
2.25 Bulk carrier	961.79	DWT of the ship	0.477
2.26 Gas carrier	1120.00	DWT of the ship	0.456
2.27 Tanker	1218.80	DWT of the ship	0.488
2.28 Container ship	174.22	DWT of the ship	0.201
2.29 General cargo ship	107.48	DWT of the ship	0.216
2.30 Refrigerated cargo carrier	227.01	DWT of the ship	0.244
2.31 Combination carrier	1219.00	DWT of the ship	0.488
2.33 Ro-ro cargo ship (vehicle carrier)	$(DWT/GT)^{-0.7}$ 780.36 where $DWT/GT < 0.3$	DWT of the ship	0.471
	1812.63 where $DWT/GT \geq 0.3$		
2.34 Ro-ro cargo ship	1405.15	DWT of the ship	0.498
	1686.17*	DWT of the ship where DWT 17,000* 17,000 where DWT > 17,000*	
2.35 Ro-ro passenger ship	752.16	DWT of the ship	0.381
	902.59*	DWT of the ship where DWT 10,000* 10,000 where DWT > 10,000*	
2.38 LNG carrier	2253.7	DWT of the ship	0.474
2.39 Cruise passenger ship having non-conventional propulsion	170.84	GT of the ship	0.214

4. If the design of a ship allows it to fall into more than one of the ship type definitions specified in table 2, the required EEDI for the ship shall be the most stringent (the lowest) required EEDI.
5. For each ship to which this regulation applies, the installed propulsion power shall not be less than the propulsion power needed to maintain the manoeuvrability of the ship under adverse conditions as defined in the guidelines to be developed by the Organization.
6. At the beginning of Phase 1 and at the midpoint of Phase 2, the Organization shall review the status of technological developments and, if proven necessary, amend the time periods, the EEDI reference line parameters for relevant ship types and reduction rates set out in this regulation.

Regulation 22

Ship Energy Efficiency Management Plan (SEEMP)

1. Each ship shall keep on board a ship specific Ship Energy Efficiency Management Plan (SEEMP). This may form part of the ship’s Safety Management System (SMS).
2. On or before 31 December 2018, in the case of a ship of 5,000 gross tonnage and above, the SEEMP shall include a description of the methodology that will be used to collect the data required by regulation 22A.1 of this Annex and the processes that will be used to report the data to the ship’s Administration.
3. The SEEMP shall be developed taking into account guidelines adopted by the Organization.

Tabel 2

Parameters vir die bepaling van verwysingswaardes vir die verskillende skeepstipes

Skiptipe in regulasie 2 omskryf	A	B	C
2.25 Massadraer	961.79	DGT van die skip	0.477
2.26 Gasdraer	1120.00	DGT van die skip	0.456
2.27 Tenkskip	1218.80	DGT van die skip	0.488
2.28 Houerskip	174.22	DGT van die skip	0.201
2.29 Algemene vragskip	107.48	DGT van die skip	0.216
2.30 Verkoelde vragskip	227.01	DGT van die skip	0.244
2.31 Kombinasiedraer	1219.00	DGT van die skip	0.488
2.33 Ro-ra vragskip (voertuigdraer)	(DGT/BT) ^{-0.7} 780.36 waar DGT/BT < 0.3	DGT van die skip	0.471
	1812.63 waar DGT/BT ≥ 0.3		
2.34 Ro-ra-vragskip	1405.15	DGT van die skip	0.498
	1686.17*	DGT van die skip waar DGT 17,000* 17,000 waar DGT > 17,000*	
2.35 Ro-ra-passasierskip	752.16	DGT van die skip	0.381
	902.59*	DGT van die skip waar DGT 10,000* 10,000 waar DGT > 10,000*	
2.38 VAG-draer	2253.7	DGT van die skip	0.474
2.39 Plesierboot met nie-konvensionele aandrywing	170.84	BT van die skip	0.214

- Indien die ontwerp van ’n skip dit toelaat om in meer as een van die skeepstipe-definisies te val wat in tabel 2 gespesifiseer word, moet die vereiste EDOI vir die skip die strengste (die laagste) vereiste EDOI wees.
- Vir elke skip waarop hierdie regulasie van toepassing is, moet die geïnstalleerde dryfkrag nie minder wees as die dryfkrag wat nodig is om die hanteerbaarheid van die skip onder ongunstige toestande te handhaaf soos omskryf in die riglyne wat deur die Organisasie ontwikkel moet word nie.
- Aan die begin van Fase 1 en teen die middelpunt van Fase 2, sal die Organisasie die status van tegnologiese ontwikkelings hersien en, indien nodig, die tydperke, die EDOI-verwysingslynparameters vir relevante skeepstipes en reduksiekoerse soos in hierdie regulasie uiteengesit, wysig.

Regulasie 22

Bestuursplan vir Skeepsenergiedoeltreffendheid (BSED)

- Elke skip moet ’n skipspesifieke Bestuursplan vir Skeepsenergiedoeltreffendheid (BSED) aan boord hou. Dit kan deel vorm van die skip se Veiligheidsbestuurstelsel (VBS).
- Op of voor 31 Desember 2018, in die geval van ’n skip van 5 000 bruto tonnemaat en meer, sal die BSED ’n beskrywing insluit van die metodologie wat gebruik sal word om die data in te samel wat deur regulasie 22A.1 van hierdie Aangangsel vereis word en die prosesse vereis wat gebruik sal word om die data aan die skip se administrasie te rapporteer.
- Die BSED moet ontwikkel word met inagneming van riglyne wat deur die Organisasie aangeneem word.

Regulation 22A*Collection and reporting of ship fuel oil consumption data*

1. From calendar year 2019, each ship of 5,000 gross tonnage and above shall collect the data specified in appendix IX to this Annex, for that and each subsequent calendar year or portion thereof, as appropriate, according to the methodology included in the SEEMP.
2. Except as provided for in paragraphs 4, 5 and 6 of this regulation, at the end of each calendar year, the ship shall aggregate the data collected in that calendar year or portion thereof, as appropriate.
3. Except as provided for in paragraphs 4, 5 and 6 of this regulation, within three months after the end of each calendar year, the ship shall report to its Administration or any organization duly authorized by it, the aggregated value for each datum specified in appendix IX to this Annex, via electronic communication and using a standardized format to be developed by the Organization.
4. In the event of the transfer of a ship from one Administration to another, the ship shall on the day of completion of the transfer or as close as practical thereto report to the losing Administration or any organization duly authorized by it, the aggregated data for the period of the calendar year corresponding to that Administration, as specified in appendix IX to this Annex and, upon prior request of that Administration, the disaggregated data.
5. In the event of a change from one Company to another, the ship shall on the day of completion of the change or as close as practical thereto report to its Administration or any organization duly authorized by it, the aggregated data for the portion of the calendar year corresponding to the Company, as specified in appendix IX to this Annex and, upon request of its Administration, the disaggregated data.
6. In the event of change from one Administration to another and from one Company to another concurrently, paragraph 4 of this regulation shall apply.
7. The data shall be verified according to procedures established by the Administration, taking into account guidelines to be developed by the Organization.
8. Except as provided for in paragraphs 4, 5 and 6 of this regulation, the disaggregated data that underlies the reported data noted in appendix IX to this Annex for the previous calendar year shall be readily accessible for a period of not less than 12 months from the end of that calendar year and be made available to the Administration upon request.
9. The Administration shall ensure that the reported data noted in appendix IX to this Annex by its registered ships of 5,000 gross tonnage and above are transferred to the IMO Ship Fuel Oil Consumption Database via electronic communication and using a standardized format to be developed by the Organization not later than one month after issuing the Statements of Compliance of these ships.
10. On the basis of the reported data submitted to the IMO Ship Fuel Oil Consumption Database, the Secretary-General of the Organization shall produce an annual report to the Marine Environment Protection Committee summarizing the data collected, the status of missing data, and such other relevant information as may be requested by the Committee.
11. The Secretary-General of the Organization shall maintain an anonymized database such that identification of a specific ship will not be possible. Parties shall have access to the anonymized data strictly for their analysis and consideration.

Regulasie 22A*Insameling van en rapportering oor skeepsbrandolieverbruikdata*

1. Met ingang van kalenderjaar 2019, moet elke skip van 5,000 bruto tonnemaat en meer die data wat in bylaag IX tot hierdie Aanhangsel gespesifiseer word, vir daardie en elke daaropvolgende kalenderjaar of gedeelte daarvan, soos toepaslik, insamel volgens die metodologie wat in die BSED ingesluit is.
2. Behalwe soos in paragrafe 4, 5 en 6 van hierdie regulasie bepaal, moet die skip aan die einde van elke kalenderjaar die data saamvoeg wat in daardie kalenderjaar of gedeelte daarvan ingesamel is, soos gepas.
3. Behalwe soos in paragrafe 4, 5 en 6 van hierdie regulasie bepaal, moet die skip binne drie maande na die einde van elke kalenderjaar aan sy Administrasie of enige organisasie wat behoorlik deur daardie Administrasie gemagtig is, die saamgestelde waarde rapporteer vir elke datum wat in bylaag IX tot hierdie Aanhangsel gespesifiseer is, via elektroniese kommunikasie en met behulp van 'n gestandaardiseerde formaat wat deur die Organisasie ontwikkel moet word.
4. In die geval van die oordrag van 'n skip van een Administrasie na 'n ander, moet die skip op die dag van voltooiing van die oordrag of so na as moontlik daaraan, aan die Administrasie aan die verloorkant of enige organisasie wat behoorlik deur daardie Administrasie gemagtig is, die saamgevoegde data vir die tydperk van die kalenderjaar wat met daardie Administrasie ooreenstem, rapporteer soos in bylaag IX by hierdie Aanhangsel gespesifiseer en, op vooraf versoek van daardie Administrasie, die geskeide data.
5. In die geval van 'n verandering van een Maatskappy na 'n ander, moet die skip op die dag van voltooiing van die verandering of so na as moontlik daaraan, aan sy Administrasie of enige organisasie wat behoorlik deur hom gemagtig is, die saamgestelde data vir die gedeelte van die kalenderjaar wat ooreenstem met die Maatskappy, rapporteer soos in bylaag IX tot hierdie Aanhangsel gespesifiseer en, op versoek van sy Administrasie, die geskeide data.
6. In die geval van 'n gelyktydige verandering van een Administrasie na 'n ander en van een Maatskappy na 'n ander, is paragraaf 4 van hierdie regulasie van toepassing.
7. Die data moet geverifieer word volgens prosedures wat deur die Administrasie vasgestel is, met inagneming van riglyne wat deur die Organisasie ontwikkel moet word.
8. Behalwe soos in paragrafe 4, 5 en 6 van hierdie regulasie bepaal, moet die geskeide data wat onderliggend is aan die gerapporteerde data wat in bylaag IX tot hierdie Aanhangsel vir die vorige kalenderjaar gespesifiseer is, gereadig toeganklik wees vir 'n tydperk van nie minder nie as 12 maande vanaf die einde van daardie kalenderjaar en op aanvraag beskikbaar gestel word aan die Administrasie.
9. Die Administrasie moet verseker dat die gerapporteerde data wat in bylaag IX tot hierdie Aanhangsel aangeteken is, deur sy geregistreerde skepe van 5,000 bruto tonnemaat en meer na die IMO-skeepsbrandolie-verbruikdatabasis oorgedra word via elektroniese kommunikasie en met behulp van 'n gestandaardiseerde formaat wat ontwikkel moet word deur die Organisasie nie later nie as een maand na die uitreiking van die Voldoeningsverklarings van hierdie skepe.
10. Op grond van die gerapporteerde data wat by die IMO-skeepsbrandolie-verbruikdatabasis ingedien is, sal die Sekretaris-generaal van die Organisasie 'n jaarverslag aan die Mariene-omgewingsbeskermingskomitee lewer wat die data wat ingesamel is, die status van vermiste data, en sodanige ander relevante inligting soos deur die Komitee aangevra mag word, opsom.
11. Die Sekretaris-generaal van die Organisasie moet 'n anonieme databasis byhou sodat 'n spesifieke skip nie geïdentifiseer kan word nie. Partye sal streng vir hul ontleding en oorweging tot die anonieme data toegang hê.

12. The IMO Ship Fuel Oil Consumption Database shall be undertaken and managed by the Secretary-General of the Organization, pursuant to guidelines to be developed by the Organization.

Regulation 23

Promotion of technical co-operation and transfer of technology relating to the improvement of energy efficiency of ships

1. Administrations shall, in co-operation with the Organization and other international bodies, promote and provide, as appropriate, support directly or through the Organization to States, especially developing States, that request technical assistance.
2. The Administration of a Party shall co-operate actively with other Parties, subject to its national laws, regulations and policies, to promote the development and transfer of technology and exchange of information to States which request technical assistance, particularly developing States, in respect of the implementation of measures to fulfil the requirements of chapter 4 of this Annex, in particular regulations 19.4 to 19.6.

Chapter 5

Verification of compliance with the provisions of this annex

Regulation 24

Application

Parties shall use the provisions of the Code for Implementation in the execution of their obligations and responsibilities contained in this Annex.

Regulation 25

Verification of compliance

1. Every Party shall be subject to periodic audits by the Organization in accordance with the audit standard to verify compliance with and implementation of this Annex.
2. The Secretary-General of the Organization shall have responsibility for administering the Audit Scheme, based on the guidelines developed by the Organization.
3. Every Party shall have responsibility for facilitating the conduct of the audit and implementation of a programme of actions to address the findings, based on the guidelines developed by the Organization.
4. Audit of all Parties shall be—
 - (a) based on an overall schedule developed by the Secretary-General of the Organization, taking into account the guidelines developed by the Organization; and
 - (b) conducted at periodic intervals, taking into account the guidelines developed by the Organization.

Appendix I

Form of International Air Pollution Prevention (IAPP) Certificate

(Regulation 8)

INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as “the Convention”) under the authority of the Government of:

12. Die IMO-skeepsbrandolie-verbruikdatabasis sal onderneem en bestuur word deur die Sekretaris-generaal van die Organisasie, ooreenkomstig riglyne wat deur die Organisasie ontwikkel moet word

Regulasie 23

Bevordering van tegniese samewerking en oordrag van tegnologie betreffende die verbetering van energiedoeltreffendheid van skepe

1. Administrasies moet, in samewerking met die Organisasie en ander internasionale liggame, regstreeks of deur middel van die Organisasie, ondersteuning bevorder en verskaf, soos toepaslik, aan State, veral ontwikkelende State, wat tegniese bystand versoek.
2. Die Administrasie van 'n Party moet aktief saamwerk met ander Partye, onderhewig aan sy nasionale wette, regulasies en beleid, om die ontwikkeling en oordrag van tegnologie en die uitruil van inligting aan State wat tegniese bystand versoek, veral ontwikkelende State, te bevorder ten opsigte van die implementering van maatreëls om te voldoen aan die vereistes van hoofstuk 4 van hierdie Aanhangsel, in besonder regulasies 19.4 tot 19.6.

Hoofstuk 5

Verifiëring van voldoening aan die bepalings van hierdie aanhangsel

Regulasie 24

Toepassing

Partye moet die bepalings van die Kode vir Inwerkingstelling gebruik in die uitvoering van hul verpligtinge en verantwoordelikhede wat in hierdie Aanhangsel vervat is.

Regulasie 25

Verifiëring van voldoening

1. Elke Party moet onderhewig wees aan periodieke oudits deur die Organisasie in ooreenstemming met die ouditstandaard om voldoening aan en implementering van hierdie Aanhangsel te verifieer.
2. Die Sekretaris-generaal van die Organisasie is verantwoordelik vir die administrasie van die Ouditskema, gegrond op die riglyne wat deur die Organisasie ontwikkel is.
3. Elke Party is verantwoordelik vir die vergemakliking van die uitvoering van die oudit en die implementering van 'n program van aksie om die bevindinge te hanteer, op grond van die riglyne wat deur die Organisasie ontwikkel is.
4. Oudit van alle partye moet—
 - (a) gegrond wees op 'n algehele skedule wat deur die Sekretaris-generaal van die Organisasie ontwikkel is, met inagneming van die riglyne wat deur die Organisasie ontwikkel is; en
 - (b) met periodieke tussenposes uitgevoer word, met inagneming van die riglyne wat deur die Organisasie ontwikkel is.

Bylaag I

Vorm van Internasionale Lugbesoedelingsvoorkoming (ILBV)—sertifikaat

(Regulasie 8)

INTERNASIONALE LUGBESOEDELINGSVOORKOMINGSERTIFIKAAT

Uitgereik kragtens die bepalings van die Protokol van 1997, soos gewysig, tot wysiging van die Internasionale Konvensie vir die Voorkoming van Besoedeling deur Skepe, 1973, soos aangepas deur die Protokol van 1978 wat daarmee verband hou (hierna “die Konvensie” genoem) kragtens die gesag van die Regering van:

.....
(Full designation of the country)

by
(Full designation of the competent person or organization
authorized under the provisions of the Convention)

Particulars of ship

Name of ship

Distinctive number or letters

Port of registry

Gross tonnage

IMO Number

THIS IS TO CERTIFY:

1. That the ship has been surveyed in accordance with regulation 5 of Annex VI of the Convention; and
2. That the survey shows that the equipment, systems, fittings, arrangements and materials fully comply with the applicable requirements of Annex VI of the Convention.

Completion date of survey on which this Certificate is based:

..... (dd/mm/yyyy)

This Certificate is valid until
subject to surveys in accordance with regulation 5 of Annex VI of the Convention.

Issued at
(Place of issue of certificate)

(dd/mm/yyyy):
(Date of issue) (Signature of authorized official
issuing the certificate)

(Seal or stamp of the authority, as appropriate)

Endorsement for annual and intermediate surveys

THIS IS TO CERTIFY that at a survey required by regulation 5 of Annex VI of the Convention the ship was found to comply with the relevant provisions of that Annex:

Annual survey: Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

Annual/Intermediate survey: Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

.....
(Volledige benaming van die land)

deur
(Volledige benaming van die bevoegde persoon of organisasie wat kragtens die
bepalings van die Konvensie gemagtig is)

Besonderhede van skip

Naam van skip

Kenmerkende nommer of letters

Hawe van registrasie

Bruto tonnemaat

IMO-nommer

DIT IS OM TE SERTIFISEER:

1. Dat die skip opgemeet is ooreenkomstig regulasie 5 van Aanhangsel VI van die Konvensie; en
2. Dat die opname toon dat die toerusting, stelsels, toebehore, reëlings en materiaal ten volle aan die toepaslike vereistes van Aanhangsel VI van die Konvensie voldoen.

Voltooingsdatum van opname waarop hierdie Sertifikaat gebaseer is:

..... (dd/mm/jjjj)

Hierdie Sertifikaat is geldig tot
behoudens opnames ooreenkomstig regulasie 5 van Aanhegsel VI van die Konvensie.

Uitgereik te
(Plek van uitreiking van sertifikaat)

(dd/mm/jjjj):
(Datum van uitreiking)

(Handtekening gemagtigde
beampte wat die sertifikaat uitreik)

(Seël of stempel van die owerheid, soos gepas)

Endossering vir jaarlikse en tussentydse opnames

DIT IS OM TE SERTIFISEER dat by 'n opname wat deur regulasie 5 van Aanhangsel VI van die Konvensie vereis word, bevind is dat die skip aan die toepaslike bepalinge van daardie Aanhangsel voldoen:

Jaarlikse opname:

Geteken:
(Handtekening van gemagtigde beampte)

Plek:

Datum (dd/mm/jjjj):

(Seël of stempel van die owerheid, soos gepas)

Annual/Intermediate survey:

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

Annual survey:

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

Annual/intermediate survey in accordance with regulation 9.8.3

THIS IS TO CERTIFY that, at an annual/intermediate survey in accordance with regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex:

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

Endorsement to extend the certificate if valid for less than 5 years where regulation 9.3 applies

The ship complies with the relevant provisions of the Annex, and this certificate shall, in accordance with regulation 9.3 of Annex VI of the Convention, be accepted as valid until (dd/mm/yyyy):

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

Endorsement where the renewal survey has been completed and regulation 9.4 applies

The ship complies with the relevant provisions of the Annex, and this certificate shall, in accordance with regulation 9.4 of Annex VI of the Convention, be accepted as valid until (dd/mm/yyyy):

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

Jaarlikse/Tussentydse opname:

Geteken:
(Handtekening van gemagtigde beampte)

Plek:

Datum (dd/mm/jjjj):

(Seël of stempel van die owerheid, soos gepas)

Jaarlikse/Tussentydse opname:

Geteken:
(Handtekening van gemagtigde beampte)

Plek:

Datum (dd/mm/jjjj):

(Seël of stempel van die owerheid, soos gepas)

Jaarlikse opname:

Geteken:
(Handtekening van gemagtigde beampte)

Plek:

Datum (dd/mm/jjjj):

(Seël of stempel van die owerheid, soos gepas)

Jaarlikse/tussentydse opname ooreenkomstig regulasie 9.8.3

DIT IS OM TE SERTIFISEER dat, by 'n jaarlikse/tussentydse opname ooreenkomstig regulasie 9.8.3 van Aanhangsel VI van die Konvensie, bevind is dat die skip aan die relevante bepalings van daardie Aanhangsel voldoen:

Geteken:
(Handtekening van gemagtigde beampte)

Plek:

Datum (dd/mm/jjjj):

(Seël of stempel van die owerheid, soos gepas)

Endossering om die sertifikaat te verleng indien vir minder as vyf jaar geldig waar regulasie 9.3 van toepassing is

Die skip voldoen aan die betrokke bepalings van die Aanhangsel en hierdie sertifikaat word, ooreenkomstig regulasie 9.3 van Aanhangsel VI van die Konvensie, as geldig aanvaar tot (dd/mm/jjjj):

Geteken:
(Handtekening van gemagtigde beampte)

Plek:

Datum (dd/mm/jjjj):

(Seël of stempel van die owerheid, soos gepas)

Endorsement to extend the validity of the certificate until reaching the port of survey or for a period of grace where regulation 9.5 or 9.6 applies

This certificate shall, in accordance with regulation 9.5 or 9.6 of Annex VI of the Convention, be accepted as valid until (dd/mm/yyyy):

Signed:
(Signature of authorized official)

Place:
Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

Endorsement for advancement of anniversary date where regulation 9.8 applies

In accordance with regulation 9.8 of Annex VI of the Convention, the new anniversary date is (dd/mm/yyyy):

Signed:
(Signature of authorized official)

Place:
Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

In accordance with regulation 9.8 of Annex VI of the Convention, the new anniversary date is (dd/mm/yyyy):

Signed:
(Signature of authorized official)

Place:
Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

Endossering waar die hernuwingsopname voltooi is en regulasie 9.4 van toepassing is

Die skip voldoen aan die betrokke bepalings van die Aanhangsel en hierdie sertifikaat word, ooreenkomstig regulasie 9.4 van Aanhangsel VI van die Konvensie, as geldig aanvaar tot (dd/mm/jjjj):

Geteken:
(Handtekening van gemagtigde beampte)

Plek:

Datum (dd/mm/jjjj):

(Seël of stempel van die owerheid, soos gepas)

Endossering om die geldigheid van die sertifikaat te verleng totdat die hawe van opname bereik word of vir 'n grasietydperk waar regulasie 9.5 of 9.6 van toepassing is

Hierdie sertifikaat word ooreenkomstig regulasie 9.5 of 9.6 van Aanhangsel VI van die Konvensie, as geldig aanvaar tot (dd/mm/jjjj):

Geteken:
(Handtekening van gemagtigde beampte)

Plek:

Datum (dd/mm/jjjj):

(Seël of stempel van die owerheid, soos gepas)

Endossering vir aanskuif van jaardatum waar regulasie 9.8 van toepassing is

Ooreenkomstig regulasie 9.8 van Aanhangsel VI van die Konvensie, is die jaardatum (dd/mm/jjjj):

Geteken:
(Handtekening van gemagtigde beampte)

Plek:

Datum (dd/mm/jjjj):

(Seël of stempel van die owerheid, soos gepas)

Ooreenkomstig regulasie 9.8 van Aanhangsel VI van die Konvensie, is die nuwe jaardatum (dd/mm/jjjj):

Geteken:
(Handtekening van gemagtigde beampte)

Plek:

Datum (dd/mm/jjjj):

(Seël of stempel van die owerheid, soos gepas)

SUPPLEMENT TO

INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE
(IAPP CERTIFICATE)

RECORD OF CONSTRUCTION AND EQUIPMENT

Notes:

1

This Record shall be permanently attached to the IAPP Certificate. The IAPP Certificate shall be available on board the ship at all times.

2

The Record shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.

3

Entries in boxes shall be made by inserting either a cross (x) for the answer “yes” and “applicable” or a (–) for the answers “no” and “not applicable” as appropriate.

4

Unless otherwise stated, regulations mentioned in this Record refer to regulations of Annex VI of the Convention and resolutions or circulars refer to those adopted by the International Maritime Organization.

1 Particulars of ship

- 1.1 Name of ship
- 1.2 IMO Number
- 1.3 Date on which keel was laid or ship was at a similar stage of construction
- 1.4 Length (*l*) metres

2 Control of emissions from ships

2.1 *Ozone-depleting substances (regulation 12)*

2.1.1 The following fire-extinguishing systems, other systems and equipment containing ozone-depleting substances, other than hydrochlorofluorocarbons (HCFCs), installed before 19 May 2005 may continue in service:

System or equipment	Location on board	Substance

2.1.2 The following systems containing HCFCs installed before 1 January 2020 may continue in service:

System or equipment	Location on board	Substance

2.2 *Nitrogen oxides (NO_x) (regulation 13)*

2.2.1 The following marine diesel engines installed on this ship are in accordance with the requirements of regulation 13, as indicated:

Applicable regulation of MARPOL Annex VI (NTC = NO _x Technical Code 2008) (AM = Approved Method)		Engine #1	Engine #2	Engine #3	Engine #4	Engine #5	Engine #6
1	Manufacturer and model						
2	Serial number						
3	Use (applicable application cycle(s) — NTC 3.2)						
4	Rated power (kW) (NTC 1.3.11)						
5	Rated speed (RPM) (NTC 1.3.12)						
6	Identical engine installed ≥ 1/1/2000 ex- empted by 13.1.1.2						
7	Identical engine installation date (dd/mm/yyyy) as per 13.1.1.2						

AANVULLING TOT
INTERNASIONALE LUGBESOEDELINGSVOORKOMINGSERTIFIKAAT
(ILBV-SERTIFIKAAT)
REKORD VAN KONSTRUKSIE EN TOERUSTING

Notas:	
1	Hierdie Rekord moet permanent by die ILBV-sertifikaat aangeheg word. Die ILBV-sertifikaat moet te alle tye aan boord van die skip beskikbaar wees.
2	Die Rekord moet ten minste in Engels, Frans of Spaans wees. Indien 'n amptelike taal van die uitreikende land ook gebruik word, geld dit in die geval van 'n dispuut of teenstrydigheid.
3	Inskrywings in boksies moet gemaak word deur of 'n kruisie (x) vir die antwoord “ja” en “toepaslik” of 'n (–) vir die antwoorde “nee” en “nie van toepassing nie”, soos gepas, in te vul.
4	Tensy anders gestel, verwys Regulasies wat in hierdie Rekord vermeld word na regulasies van Aanhangel VI van die Konvensie en besluite of omsendbriewe verwys na dié wat deur die Internasionale Maritieme Organisasie aangeneem is.

1 Besonderhede van skip

- 1.1 Naam van skip
- 1.2 IMO-nommer
- 1.3 Datum waarop kiel gelê is of skip op 'n soortgelyke stadium van konstruksie was
- 1.4 Lengte (*l*) meter

2 Beheer van emissies vanaf skepe

2.1 Osoonafbrekende stowwe (regulasie 12)

2.1.1 Die volgende brandblusstelsels, ander stelsels en toerusting wat osoonafbrekende stowwe bevat, behalwe hidroklorofluorokoolstof (HKFK's), wat voor 19 Mei 2005 geïnstalleer is, kan in diens bly:

Stelsel of toerusting	Ligging aan boord	Stof

2.1.2 Die volgende stelsels wat HKFK'S bevat wat voor 1 Januarie 2020 geïnstalleer is, kan in diens voortgaan:

Stelsel of toerusting	Ligging aan boord	Stof

2.2 Stikstofoksiede (NO_x) (regulasie 13)

2.2.1 Die volgende mariene dieselenjins wat op hierdie skip geïnstalleer is, is ooreenkomstig die vereistes van regulasie 13, soos aangedui:

Toepaslike regulasie van MARPOLAanhangel VI (NTK = NO _x Tegniese Kode 2008)) (GM = Goedgekeurde Metode)		Enjin #1	Enjin #2	Enjin #3	Enjin #4	Enjin #5	Enjin #6
1	Vervaardiger en model						
2	Reeksnommer						
3	Gebruik (toepaslike toepassingsiklus(se) – NTC 3.2)						
4	Aangeslaande krag (kW) (NTC 1.3.11)						
5	Aangeslaande spoed (RPM) (NTC 1.3.12)						
6	Identiese enjin geïnstalleer ≥ 1/1/2000 vrygestel deur 13.1.1.2						
7	Identiese enjininstalleringsdatum (dd/mm/jjjj) soos per 13.1.1.2						

Applicable regulation of MARPOL Annex VI (NTC = NO _x Technical Code 2008) (AM = Approved Method)			Engine #1	Engine #2	Engine #3	Engine #4	Engine #5	Engine #6
8a	Major Conversion (dd/mm/yyyy)	13.2.1.1 & 13.2.2						
8b		13.2.1.2 & 13.2.3						
8c		13.2.1.3 & 13.2.3						
9a	Tier I	13.3						
9b		13.2.2						
9c		13.2.3.1						
9d		13.2.3.2						
9e		13.7.1.2						
10a	Tier II	13.4						
10b		13.2.2						
10c		13.2.2 (Tier III not possible)						
10d		13.2.3.2						
10e		13.5.2 (Exemptions)						
10f		13.7.1.2						
11a	Tier III (ECA-NO _x only)	13.5.1.1						
11b		13.2.2						
11c		13.2.3.2						
11d		13.7.1.2						
12	AM*	installed						
13		not commercially available at this survey						
14		not applicable						

2.3 Sulphur oxides (SO_x) and particulate matter (regulation 14)

2.3.1 When the ship operates outside of an emission control area specified in regulation 14.3, the ship uses:

- (a) fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of 0.50% m/m, and/or
- (b) an equivalent arrangement approved in accordance with regulation 4.1 as listed in paragraph 2.6 that is at least as effective in terms of SO_x emission reductions as compared to using a fuel oil with a sulphur content limit value of 0.50% m/m

2.3.2 When the ship operates inside an emission control area specified in regulation 14.3, the ship uses—

- (a) fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of 0.10% m/m, and/or
- (b) an equivalent arrangement approved in accordance with regulation 4.1 as listed in paragraph 2.6 that is at least as effective in terms of SO_x emission reductions as compared to using a fuel oil with a sulphur content limit value of 0.10% m/m

2.3.3 For a ship without an equivalent arrangement approved in accordance with regulation 4.1 as listed in paragraph 2.6, the sulphur content of fuel oil carried for use on board the ship shall not exceed 0.50% m/m as documented by bunker delivery notes

2.4 Volatile organic compounds (VOCs) (regulation 15)

- (a) The tanker has a vapour collection system installed and approved in accordance with MSC/Circ.585
- (b) For a tanker carrying crude oil, there is an approved VOC management plan
- (c) VOC management plan approval reference:

Toepaslike regulasie van MARPOLAanhangsel VI (NTK = NO _x Tegniese Kode 2008)) (GM = Goedgekeurde Metode)			Enjin #1	Enjin #2	Enjin #3	Enjin #4	Enjin #5	Enjin #6
8a	Groot ombouing (dd/mm/jjjj)	13.2.1.1 & 13.2.2						
8b		13.2.1.2 & 13.2.3						
8c		13.2.1.3 & 13.2.3						
9a	Vlak I	13.3						
9b		13.2.2						
9c		13.2.3.1						
9d		13.2.3.2						
9e		13.7.1.2						
10a	Vlak II	13.4						
10b		13.2.2						
10c		13.2.2 (Vlak III nie moontlik nie)						
10d		13.2.3.2						
10e		13.5.2 (Vrystellings)						
10f		13.7.1.2						
11a	Vlak III (ECA-NO _x alleenlik)	13.5.1.1						
11b		13.2.2						
11c		13.2.3.2						
11d		13.7.1.2						
12	GM*	Geïnstalleer						
13		met hierdie opname nie kommersieel beskikbaar nie						
14		nie toepaslik nie						

2.3 Swaeloksiede (SO_x) en partikelstof (regulasie 14)

2.3.1 Wanneer die skip werk buite ’n emissiebeheergebied wat in regulasie 14.3 gespesifiseer is, gebruik die skip:

- (a) brandolie met ’n swaelinhoud soos gedokumenteer deur bunkerafleweringnotas wat nie die limietwaarde van 0.50% m/m oorskry nie, en/of
- (b) ’n soortgelyke reëling goedgekeur ooreenkomstig regulasie 4.1 soos gelys in paragraaf 2.6 wat ten minste net so effektief is in terme van SO_x-emissievermindering as in vergelyking met die gebruik van ’n brandolie met ’n swaelinhoudgrenswaarde van 0.50% m/m

2.3.2 Wanneer die skip werk binne ’n emissiebeheergebied gespesifiseer in regulasie 14.3, gebruik die skip—

- (a) brandolie met ’n swaelinhoud soos gedokumenteer deur bunkerafleweringnotas wat nie die limietwaarde van 0.10% m/m oorskry nie, en/of
- (b) ’n ekwivalente reëling goedgekeur ooreenkomstig regulasie 4.1 soos gelys in paragraaf 2.6 wat ten minste net so doeltreffend is ten opsigte van SO_x-emissievermindering as in vergelyking met die gebruik van ’n brandolie met ’n swaelinhoudgrenswaarde van 0,10% m/m

2.3.3 Vir ’n skip sonder ’n gelykwaardige reëling wat ooreenkomstig regulasie 4.1 soos gelys in paragraaf 2.6 goedgekeur is, mag die swaelinhoud van brandolie wat vir gebruik aan boord van die skip vervoer word, nie 0.50% m/m oorskry nie, soos gedokumenteer deur bunkerafleweringnotas

2.4 Vlugtige organiese verbindings (VOV’s) (regulasie 15)

- (a) Die tenkskip het ’n stoomopvangstelsel wat geïnstalleer en goedgekeur is in ooreenstemming met MSC/Circ.585
- (b) Vir ’n tenkskip wat ru-olie vervoer, is daar ’n goedgekeurde VOV-bestuursplan
- (c) VOV-bestuursplan-goedkeuringsverwysing:

2.5 Shipboard incineration (regulation 16)

- The ship has an incinerator:
- (a) installed on or after 1 January 2000 that complies with—
 - (i) resolution MEPC.76(40), as amended
 - (ii) resolution MEPC.244(66)
 - (b) installed before 1 January 2000 that complies with—
 - (i) resolution MEPC.59(33), as amended
 - (ii) resolution MEPC.76(40), as amended

2.6 Equivalents (regulation 4)

The ship has been allowed to use the following fitting, material, appliance or apparatus to be fitted in a ship or other procedures, alternative fuel oils, or compliance methods used as an alternative to that required by this Annex:

System or equipment	Equipment used	Approved reference

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

Issued at (Place of issue of the Record)

(dd/mm/yyyy): (Date of issue) (Signature of authorized official issuing the Record)

(Seal or stamp of the authority, as appropriate)

Appendix II

Test cycles and weighting factors

(Regulation 13)

The following test cycles and weighting factors shall be applied for verification of compliance of marine diesel engines with the applicable NO_x limit in accordance with regulation 13 of this Annex using the test procedure and calculation method as specified in the revised NO_x Technical Code 2008.

- (a) For constant-speed marine engines for ship main propulsion, including diesel-electric drive, test cycle E2 shall be applied;
- (b) For controllable-pitch propeller sets test cycle E2 shall be applied;
- (c) For propeller-law-operated main and propeller-law-operated auxiliary engines the test cycle E3 shall be applied;
- (d) For constant-speed auxiliary engines test cycle D2 shall be applied; and
- (e) For variable-speed, variable-load auxiliary engines, not included above, test cycle C1 shall be applied.

Test cycle for constant-speed main propulsion application

(including diesel-electric drive and all controllable-pitch propeller installations)

Test cycle type E2	Speed	100%	100%	100%	100%
	Power	100%	75%	50%	25%
	Weighting factor	0.2	0.5	0.15	0.15

Test cycle for propeller-law-operated main and propeller-law-operated auxiliary engine application

Test cycle type E3	Speed	100%	91%	80%	63%
	Power	100%	75%	50%	25%
	Weighting factor	0.2	0.5	0.15	0.15

2.5 Verbranding aan boord (regulasie 16)

Die skip het 'n verbrandingsoond:

- (a) wat op of na 1 Januarie 2000, geïnstalleer is, wat voldoen aan—
 - (i) resolu­sie MEPC.76(40), soos gewysig
 - (ii) resolu­sie MEPC.244(66)
- (b) wat voor 1 Januarie 2000, geïnstalleer is, wat voldoen aan—
 - (i) resolu­sie MEPC.59(33), soos gewysig
 - (ii) resolu­sie MEPC.76(40), soos gewysig

2.6 Ekwivalente (regulasie 4)

Die skip is toegelaat om die volgende toebehore, materiaal, toestel of apparaat wat in 'n skip aangebring moet word te gebruik of ander prosedures, alternatiewe brandolies, of voldoeningsmetodes wat gebruik word as 'n alternatief vir dié wat deur hierdie Aanhangsel vereis word:

Stelsel of toerusting	Toerusting gebruik	Goedgekeurde verwysing

HIERMEE WORD GESERTIFISEER dat hierdie Rekord in alle opsigte korrek is.

Uitgereik te
(Plek van uitreiking van die Rekord)

(dd/mm/jjjj):
(Datum van uitreiking) (Handtekening van gemagtigde beampte wat die Rekord uitreik)

(Seël of stempel van die owerheid, soos gepas)

Bylaag II

Toetssiklusse en beswaringsfaktore

(Regulasie 13)

Die volgende toetssiklusse en beswaringsfaktore moet toegepas word vir verifiëring van voldoening van mariene dieselenjins aan die toepaslike NO_x-limiet in ooreenstemming met regulasie 13 van hierdie Aanhangsel deur die toetsprosedure en berekeningsmetode soos gespesifiseer in die hersiene NO_x Tegnie­se Kode 2008.

- (a) Vir konstante-spoed mariene enjins vir skeepshoofaandrywing, insluitend diesel-elektriese aandrywing, moet toetssiklus E2 toegepas word;
- (b) Vir propellerstelle met beheerbare steek moet toetssiklus E2 toegepas word;
- (c) Vir propellerwet-aangedrewe hoof- en propellerwet-aangedrewe hulpenjins moet die toetssiklus E3 toegepas word;
- (d) Vir konstante-spoed hulpenjins moet toetssiklus D2 toegepas word; en
- (e) Vir veranderlike spoed, veranderlike-las hulpenjins, wat nie hierbo ingesluit is nie, moet toetssiklus C1 toegepas word.

Toetssiklus vir konstante-spoed hoofaandrywing-toepassing

(met inbegrip van diesel-elektriese aandrywing en alle beheerbare skroefinstallasies)

Toetssiklustipe E2	Spoed	100%	100%	100%	100%
	Krag	100%	75%	50%	25%
	Beswaringsfaktor	0.2	0.5	0.15	0.15

Toetssiklus vir propellerwetgedrewe hoof- en propellerwetgedrewe hulpenjintoepassing

Toetssiklustipe E3	Spoed	100%	91%	80%	63%
	Krag	100%	75%	50%	25%
	Beswaringsfaktor	0.2	0.5	0.15	0.15

Test cycle for *constant-speed auxiliary engine* application

Test cycle type D2	Speed	100%	100%	100%	100%	100%
	Power	100%	75%	50%	25%	10%
	Weighting factor	0.05	0.25	0.3	0.3	0.1

Test cycle for *variable-speed and -load auxiliary engine* application

Test cycle type C1	Speed	Rated				Intermediate			Idle
	Torque	100%	75%	50%	10%	100%	75%	50%	0%
	Weighting factor	0.15	0.15	0.15	0.1	0.1	0.1	0.1	0.15

In the case of an engine to be certified in accordance with paragraph 5.1.1 of regulation 13, the specific emission at each individual mode point shall not exceed the applicable NO_x emission limit value by more than 50% except as follows:

1. The 10% mode point in the D2 test cycle.
2. The 10% mode point in the C1 test cycle.
3. The idle mode point in the C1 test cycle.

Appendix III

Criteria and procedures for designation of emission control areas
(Regulation 13.6 and regulation 14.3)

- 1Objectives
- 1.1

The purpose of this appendix is to provide the criteria and procedures to Parties for the formulation and submission of proposals for the designation of emission control areas and to set forth the factors to be considered in the assessment of such proposals by the Organization.
- 1.2

Emissions of NO_x, SO_x and particulate matter from ocean-going ships contribute to ambient concentrations of air pollution in cities and coastal areas around the world. Adverse public health and environmental effects associated with air pollution include premature mortality, cardiopulmonary disease, lung cancer, chronic respiratory ailments, acidification and eutrophication.
- 1.3

An emission control area should be considered for adoption by the Organization if supported by a demonstrated need to prevent, reduce and control emissions of NO_x or SO_x and particulate matter or all three types of emissions (hereinafter emissions) from ships.
- 2Process for the designation of emission control areas
- 2.1

A proposal to the Organization for designation of an emission control area for NO_x or SO_x and particulate matter or all three types of emissions may be submitted only by Parties. Where two or more Parties have a common interest in a particular area, they should formulate a coordinated proposal.
- 2.2

A proposal to designate a given area as an emission control area should be submitted to the Organization in accordance with the rules and procedures established by the Organization.
- 3Criteria for designation of an emission control area
- 3.1

The proposal shall include:

(a)

a clear delineation of the proposed area of application, along with a reference chart on which the area is marked;

(b)

the type or types of emission(s) that is or are being proposed for control (i.e., NO_x or SO_x and particulate matter or all three types of emissions);

(c)

a description of the human populations and environmental areas at risk from the impacts of ship emissions;

Toetssiklus vir konstantespoed hulpenjintoepassing

Toetssiklustipe D2	Spoed	100%	100%	100%	100%	100%
	Krag	100%	75%	50%	25%	10%
	Beswaringsfaktor	0.05	0.25	0.3	0.3	0.1

Toetssiklus vir veranderlike-spoed en—ladingshulpenjintoepassing

Toetssiklus-tipe C1	Spoed	Aangeslaan				Intermediêr			Luier
	Wringkrag	100%	75%	50%	10%	100%	75%	50%	0%
	Beswaringsfaktor	0.15	0.15	0.15	0.1	0.1	0.1	0.1	0.15

In die geval van ’n enjin wat ooreenkomstig paragraaf 5.1.1 van regulasie 13 gesertifiseer gaan word, moet die spesifieke emissie by elke individuele moduspunt nie die toepaslike NO_x-emissie limietwaarde met meer as 50% oorskry nie, behalwe soos volg:

- Die 10% moduspunt in die D2-toetssiklus.
- Die 10% moduspunt in die C1-toetssiklus.
- Die luiermoduspunt in die C1-toetssiklus.

Bylaag III

Maatstawwe en prosedures vir aanwysing van emissiebeheergebiede

(Regulasie 13.6 en regulasie 14.3)

1 Oogmerke

- Die doel van hierdie bylaag is om die maatstawwe en prosedures aan Partye te verskaf vir die formulering en indiening van voorstelle vir die aanwysing van emissiebeheergebiede en om die faktore uiteen te sit wat oorweeg moet word in die beoordeling van sulke voorstelle deur die Organisasie.
- Vrystellings van NO_x, SO_x en partikeldeeltjies vanaf see-skepe dra by tot omgewingskonsentrasies van lugbesoedeling in stede en kusgebiede regoor die wêreld. Nadelige uitwerkings op openbare gesondheid en die omgewing wat met lugbesoedeling gepaard gaan, sluit in voortydige sterftes, kardiopulmonêre siektes, longkanker, chroniese respiratoriese kwale, versuring en eutrofisering.
- ’n Emissiebeheergebied moet oorweeg word vir aanvaarding deur die Organisasie indien dit ondersteun word deur ’n gedemonstreerde behoefte om uitstoot van NO_x of SO_x en deeltjies of al drie tipes emissies (hierna emissie) vanaf skepe te voorkom, te verminder en te beheer.

2 Proses vir die aanwysing van emissiebeheergebiede

- Voorstel aan die Organisasie vir die aanwysing van ’n emissiebeheergebied vir NO_x of SO_x en deeltjies of al drie tipes emissies kan slegs deur Partye ingedien word. Waar twee of meer partye ’n gemeenskaplike belang in ’n bepaalde gebied het, moet hulle ’n gekoördineerde voorstel formuleer.
- ’n Voorstel om ’n gegewe gebied as ’n emissiebeheergebied aan te wys, moet aan die Organisasie voorgelê word in ooreenstemming met die reëls en prosedures wat deur die Organisasie vasgestel is.

3 Maatstawwe vir die aanwysing van ’n emissiebeheergebied

- Die voorstel moet die volgende insluit:
 - ’n duidelike afbakening van die voorgestelde gebied van toepassing, tesame met ’n verwysingskaart waarop die gebied gemerk is;
 - die tipe of tipes emissie(s) wat vir beheer voorgestel is of word (d.w.s. NO_x of SO_x en deeltjies of al drie tipes emissies);
 - ’n beskrywing van die menslike bevolkings en omgewingsgebiede wat gevaar loop van die impak van skeepsemissies;

- (d) an assessment that emissions from ships operating in the proposed area of application are contributing to ambient concentrations of air pollution or to adverse environmental impacts. Such assessment shall include a description of the impacts of the relevant emissions on human health and the environment, such as adverse impacts to terrestrial and aquatic ecosystems, areas of natural productivity, critical habitats, water quality, human health, and areas of cultural and scientific significance, if applicable. The sources of relevant data including methodologies used shall be identified;
 - (e) relevant information, pertaining to the meteorological conditions in the proposed area of application, to the human populations and environmental areas at risk, in particular prevailing wind patterns, or to topographical, geological, oceanographic, morphological or other conditions that contribute to ambient concentrations of air pollution or adverse environmental impacts;
 - (f) the nature of the ship traffic in the proposed emission control area, including the patterns and density of such traffic;
 - (g) a description of the control measures taken by the proposing Party or Parties addressing land-based sources of NO_x, SO_x and particulate matter emissions affecting the human populations and environmental areas at risk that are in place and operating concurrent with the consideration of measures to be adopted in relation to provisions of regulations 13 and 14 of Annex VI; and
 - (h) the relative costs of reducing emissions from ships when compared with land-based controls, and the economic impacts on shipping engaged in international trade.
- 3.2 The geographical limits of an emission control area will be based on the relevant criteria outlined above, including emissions and deposition from ships navigating in the proposed area, traffic patterns and density, and wind conditions.
- 4 *Procedures for the assessment and adoption of emission control areas by the Organization*
- 4.1 The Organization shall consider each proposal submitted to it by a Party or Parties.
- 4.2 In assessing the proposal, the Organization shall take into account the criteria that are to be included in each proposal for adoption as set forth in section 3 above.
- 4.3 An emission control area shall be designated by means of an amendment to this Annex, considered, adopted and brought into force in accordance with article 16 of the present Convention.
- 5 *Operation of emission control areas*

Parties that have ships navigating in the area are encouraged to bring to the Organization any concerns regarding the operation of the area.

Appendix IV

Type approval and operating limits for shipboard incinerators (Regulation 16)

1. Shipboard incinerators described in regulation 16.6.1 shall possess an IMO Type Approval Certificate for each incinerator. In order to obtain such certificate, the incinerator shall be designed and built to an approved standard as described in regulation 16.6.1. Each model shall be subject to a specified type approval test operation at the factory or an approved test facility, and under the responsibility of the Administration, using the following standard fuel/waste specification for the type approval test for determining whether the incinerator operates within the limits specified in paragraph 2 of this appendix:

- (d) 'n beoordeling dat emissies van skepe wat in die voorgestelde toepassingsgebied werk, bydra tot omgewingskonsentrasies van lugbesoedeling of tot nadelige omgewingsimpakte. Sodanige assessering sal 'n beskrywing insluit van die impak van die betrokke emissies op menslike gesondheid en die omgewing, soos nadelige impakte op terrestriële en akwatiese ekosisteme, gebiede van natuurlike produktiwiteit, kritieke habitate, watergehalte, menslike gesondheid en gebiede van kulturele en wetenskaplike gebiede. betekenis, indien van toepassing. Die bronne van relevante data, insluitend metodologieë wat gebruik word, moet geïdentifiseer word;
 - (e) relevante inligting, met betrekking tot die meteorologiese toestande in die voorgestelde toepassingsgebied, tot die menslike bevolkings en omgewingsgebiede wat in gevaar is, in die besonder heersende windpatrone, of tot topografiese, geologiese, oseaanografiese, morfologiese of ander toestande wat bydra tot die omgewing konsentrasies van lugbesoedeling of nadelige omgewingsimpakte;
 - (f) die aard van die skeepsverkeer in die voorgestelde emissiebeheergebied, met inbegrip van die patrone en digtheid van sodanige verkeer;
 - (g) 'n beskrywing van die beheermaatreëls wat deur die voornemende Party of Partye getref is wat landgebaseerde bronne van NO_x, SO_x en deeltjies wat die menslike bevolkings en omgewingsgebiede wat in gevaar is, raak wat in plek is en wat in bedryf is saam met die oorweging van maatreëls aangeneem gaan word met betrekking tot bepalinge van regulasies 13 en 14 van Aanhangsel VI; en
 - (h) die relatiewe koste van die vermindering van emissies van skepe in vergelyking met landgebaseerde beheermaatreëls, en die ekonomiese impak op skeepsvaart wat in internasionale handel betrokke is.
- 3.2 Die geografiese grense van 'n emissiebeheergebied moet gebaseer word op die relevante maatstawwe hierbo uiteengesit, met inbegrip van emissies en afsettings van skepe wat in die voorgestelde gebied vaar, verkeerspatrone en digtheid, en windtoestande.
- 4 *Prosedures vir die assessering en aanvaarding van emissiebeheergebiede deur die Organisasie*
- 4.1 Die Organisasie moet elke voorstel wat deur 'n Party of Partye aan hom voorgelê word, oorweeg.
- 4.2 By die beoordeling van die voorstel, moet die Organisasie die maatstawwe in ag neem wat in elke voorstel vir aanvaarding ingesluit moet word soos uiteengesit in artikel 3 hierbo.
- 4.3 'n Emissiebeheergebied moet aangewys word deur middel van 'n wysiging aan hierdie Aanhangsel, oorweeg, aangeneem en in werking gestel word ooreenkomstig artikel 16 van hierdie Konvensie.
- 5 *Werking van emissiebeheergebiede*
1. Partye wat skepe het wat in die gebied vaar, word aangemoedig om enige bekommernisse oor die werking van die gebied aan die Organisasie te bring.

Bylaag IV

Tipegoedkeuring en bedryfslimiete vir aanboordverbrandingsoonde (Regulasie 16)

1. Aanboordverbrandingsoonde wat in regulasie 16.6.1 beskryf word, moet 'n IMO-tipegoedkeuringsertifikaat vir elke verbrandingsoond hê. Om so 'n sertifikaat te verkry, moet die verbrandingsoond ontwerp en gebou word volgens 'n goedgekeurde standaard soos beskryf in regulasie 16.6.1. Elke model is onderhewig aan 'n gespesifiseerde tipegoedkeuringstoetsgebruik by die fabriek of 'n goedgekeurde toetsfasiliteit, en onder die verantwoordelikheid van die Administrasie, met behulp van die volgende standaard brandstof/afval spesifikasie vir die tipegoedkeuringstoets om te bepaal of die verbrander werk binne die limiete gespesifiseer in paragraaf 2 van hierdie bylaag:

- Sludge oil consisting of: 75% sludge oil from heavy fuel oil (HFO);
5% waste lubricating oil; and
20% emulsified water.
 - Solid waste consisting of: 50% food waste;
50% rubbish containing;
approx. 30% paper,
"40% cardboard,
"10% rags,
"20% plastic
The mixture will have up to 50% moisture and 7%
incombustible solids.
2. Incinerators described in regulation 16.6.1 shall operate within the following limits:
- O₂ in combustion chamber: 6-12%
 - CO in flue gas maximum average: 200 mg/MJ
 - Soot number maximum average: Bacharach 3 or
Ringelman 1 (20% opacity) (a higher soot
number is acceptable only during very
short periods such as starting up)
 - Unburned components in ash Maximum 10% by weight residues:
 - Combustion chamber flue gas 850-1200 °C
 - outlet temperature range:

Appendix V

Information to be included in the bunker delivery note (Regulation 18.5)

1. Name and IMO Number of receiving ship
2. Port
3. Date of commencement of delivery
4. Name, address and telephone number of marine fuel oil supplier
5. Product name(s)
6. Quantity in metric tonnes
7. Density at 15°C (kg/m³)
8. Sulphur content (% m/m)
9. A declaration signed and certified by the fuel oil supplier's representative that the fuel oil supplied is in conformity with regulation 18.3 of this Annex and that the sulphur content of the fuel oil supplied does not exceed:
 - the limit value given by regulation 14.1 of this Annex;
 - the limit value given by regulation 14.4 of this Annex; or
 - the purchaser's specified limit value of _____ (% m/m), as completed by the fuel oil supplier's representative and on the basis of the purchaser's notification that the fuel oil is intended to be used:

- Slykolie bestaande uit: 75% slykolie vanaf swaar brandolie (HFO);
5% afvalsmeerolie; en
20% geëmulgeerde water.
 - Soliede afval bestaande uit: 50% voedselafval;
50% rommelbevattende;
ongeveer 30% papier,
"40% karton,
"10% lappe,
"20% plastiek
Die mengsel sal tot en met 50% vog en 7%
onontvlambare soliede stowwe bevat.
2. Verbrandingsoonde wat in regulasie 16.6.1 beskryf word, moet binne die volgende beperkings bedryf word:
- O₂ in verbrandingskamer: 6-12%
 - CO in verbrandingsgas maksimum
gemiddeld: 200 mg/MJ
 - Roetgetal maksimum gemiddeld: Bacharach 3 of
Ringelman 1 (20% ondeursigtigheid) ('n
hoër roetgetal is slegs aanvaarbaar
tydens baie kort tydperk soos tydens
aanskakeling)
 - Onverbrande komponente in as Maksimum 10% volgens gewigresidu's:
 - Verbrandingskamer rookgas 850-1200 °C
 - Uitlaat temperatuurreeks:

Bylaag V

Inligting wat ingesluit moet wees in die bunkerafleweringnota (Regulasie 18.5)

1. Naam en IMO-nommer van ontvangende skip
2. Hawe
3. Datum van begin van lewering
4. Naam, adres en telefoonnommer van mariene brandolieverskaffer
5. Produknaam/-name
6. Hoeveelheid in metrieke ton
7. Digtheid teen 15°C (kg/m³)
8. Swaelinhoud (% m/m)
9. 'n Deklarasie wat onderteken en gesertifiseer is deur die brandolieverskaffer se verteenwoordiger dat die brandolie wat verskaf is, voldoen aan regulasie 18.3 van hierdie Aanhegsel en dat die swaelinhoud van die brandolie wat verskaf is nie meer is nie as:
 - die limietwaarde wat deur regulasie 14.1 van hierdie Aanhangsel gegee is;
 - die limietwaarde gegee deur regulasie 14.4 van hierdie Aanhangsel; of
 - die koper se gespesifiseerde limietwaarde van _____ (% m/m), soos voltooi deur die brandolieverskaffer se verteenwoordiger en op die basis van die koper se kennisgewing dat die brandolie bedoel is om gebruik te word;

- (a) in combination with an equivalent means of compliance in accordance with regulation 4 of this Annex; or
- (b) is subject to a relevant exemption for a ship to conduct trials for sulphur oxides emission reduction and control technology research in accordance with regulation 3.2 of this Annex.

The declaration shall be completed by the fuel oil supplier's representative by marking the applicable box(es) with a cross (x).

Appendix VI

Fuel verification procedure for MARPOL Annex VI fuel oil samples (Regulation 18.8.2)

The following procedure shall be used to determine whether the fuel oil delivered to and used on board ships is compliant with the sulphur limits required by regulation 14 of Annex VI.

1 General requirements

- (a) The representative fuel oil sample, which is required by paragraph 8.1 of regulation 18 (the "MARPOL sample") shall be used to verify the sulphur content of the fuel oil supplied to a ship.
- (b) An Administration, through its competent authority, shall manage the verification procedure.
- (c) The laboratories responsible for the verification procedure set forth in this appendix shall be fully accredited for the purpose of conducting the tests.

2.1 Verification procedure stage 1

The MARPOL sample shall be delivered by the competent authority to the laboratory.

2.2 The laboratory shall:

- (a) record the details of the seal number and the sample label on the test record;
- (b) confirm that the condition of the seal on the MARPOL sample is that it has not been broken; and
- (c) reject any MARPOL sample where the seal has been broken.

2.3 If the seal of the MARPOL sample has not been broken, the laboratory shall proceed with the verification procedure and shall:

- (a) ensure that the MARPOL sample is thoroughly homogenized;
- (b) draw two subsamples from the MARPOL sample; and
- (c) reseal the MARPOL sample and record the new reseal details on the test record.

2.4 The two subsamples shall be tested in succession, in accordance with the specified test method referred to in appendix V (second footnote). For the purposes of this verification procedure, the results of the test analysis shall be referred to as "A" and "B":

- (a) If the results of "A" and "B" are within the repeatability (*r*) of the test method, the results shall be considered valid.
- (b) If the results of "A" and "B" are not within the repeatability (*r*) of the test method, both results shall be rejected and two new subsamples should be taken by the laboratory and analysed. The sample bottle should be resealed in accordance with paragraph 2.3.3 above after the new subsamples have been taken.

2.5 If the test results of "A" and "B" are valid, an average of these two results should be calculated thus giving the result referred to as "X":

- (a) If the result of "X" is equal to or falls below the applicable limit required by Annex VI, the fuel oil shall be deemed to meet the requirements.
- (b) If the result of "X" is greater than the applicable limit required by Annex VI, verification procedure stage 2 should be conducted; however, if the result of

- (a) in kombinasie met 'n ekwivalente wyse van nakoming ooreenkomstig regulasie 4 van hierdie Aanhangsel; of
- (b) is onderhewig aan 'n tersaaklike vrystelling vir 'n skip om toetse te doen vir swaeloksied-emissievermindering en beheertegnologiesnavorsing ooreenkomstig regulasie 3.2 van hierdie Aanhangsel.

Die verklaring moet deur die brandolieverskaffer se verteenwoordiger ingevul word deur die toepaslike blokkie(s) met 'n kruisie (x) te merk.

Bylaag VI

Brandstofverifiëringsprosedure vir MARPOL Aanhangsel VI-brandoliemonsters (Regulasie 18.8.2)

Die volgende prosedure moet gebruik word om te bepaal of die brandolie wat aan boord van skepe gelever en gebruik word, voldoen aan die swaelperke wat deur regulasie 14 van Aanhangsel VI vereis word.

1 Algemene vereistes

- (a) Die verteenwoordigende brandoliemonster, wat deur paragraaf 8.1 van regulasie 18 vereis word (die "MARPOL-monster"), moet gebruik word om die swaelinhoud van die brandolie wat aan 'n skip verskaf word, te verifieer.
- (b) 'n Administrasie, deur sy bevoegde owerheid, moet die verifiëringsprosedure bestuur.
- (c) Die laboratoriums verantwoordelik vir die verifiëringsprosedure soos uiteengesit in hierdie bylaag, moet ten volle geakkrediteer wees vir die doel om die toetse uit te voer.

2.1 Verifiëringsprosedure stadium 1

Die MARPOL-monster sal deur die bevoegde owerheid by die laboratorium afgelewer word.

2.2 Die laboratorium moet:

- (a) die besonderhede van die seëlnommer en die monsteretiket op die toetsrekord aanteken;
- (b) bevestig dat die seël op die MARPOL-monster nie gebreek is nie; en
- (c) enige MARPOL-monster waarvan die seël gebreek is, verwerp.

2.3 Indien die seël van die MARPOL-monster nie gebreek is nie, moet die laboratorium voortgaan met die verifiëringsprosedure en moet:

- (a) verseker dat die MARPOL-monster deeglik gehomogeniseer is;
- (b) twee submonsters uit die MARPOL-monster trek; en
- (c) die MARPOL-monster herseël en die nuwe herseëlbesonderhede op die toetsrekord aanteken.

2.4 Die twee submonsters moet agtereenvolgend getoets word, ooreenkomstig die gespesifiseerde toetsmetode waarna in bylaag V (tweede voetnoot) verwys word. Vir die doeleindes van hierdie verifiëringsprosedure word na die resultate van die toetsanalise verwys as "A" en "B":

- (a) Indien die resultate van "A" en "B" binne die herhaalbaarheid (*r*) van die toetsmetode is, sal die resultate as geldig beskou word.
- (b) Indien die resultate van "A" en "B" nie binne die herhaalbaarheid (*r*) van die toetsmetode is nie, moet beide resultate verwerp word en twee nuwe submonsters moet deur die laboratorium geneem en ontleed word. Die monsterbottel moet herseël word in ooreenstemming met paragraaf 2.3.3 hierbo nadat die nuwe submonsters geneem is.

2.5 Indien die toetsresultate van "A" en "B" geldig is, moet 'n gemiddeld van hierdie twee resultate bereken word om sodoende die resultaat te gee waarna verwys word as "X":

- (a) Indien die resultaat van "X" gelyk aan of onder die toepaslike limiet is wat deur Aanhangsel VI vereis word, val, word die brandolie geag aan die vereistes te voldoen.
- (b) Indien die resultaat van "X" groter is as die toepaslike limiet wat deur anhangsel VI vereis word, moet verifiëringsprosedure stadium 2 uitgevoer

“X” is greater than the specification limit by $0.59R$ (where R is the reproducibility of the test method), the fuel oil shall be considered non-compliant and no further testing is necessary.

3. *Verification procedure stage 2*

- 3.1 If stage 2 of the verification procedure is necessary in accordance with paragraph 2.5.2 above, the competent authority shall send the MARPOL sample to a second accredited laboratory.
- 3.2 Upon receiving the MARPOL sample, the laboratory shall—
- (a) record the details of the reseal number applied in accordance with 2.3.3 above and the sample label on the test record;
 - (b) draw two subsamples from the MARPOL sample; and
 - (c) reseal the MARPOL sample and record the new reseal details on the test record.
- 3.3 The two subsamples shall be tested in succession, in accordance with the test method specified in appendix V (second footnote). For the purposes of this verification procedure, the results of the test analysis shall be referred to as “C” and “D”:
- (a) If the results of “C” and “D” are within the repeatability (r) of the test method, the results shall be considered valid.
 - (b) If the results of “C” and “D” are not within the repeatability (r) of the test method, both results shall be rejected and two new subsamples shall be taken by the laboratory and analysed. The sample bottle should be resealed in accordance with paragraph 3.2.3 above after the new subsamples have been taken.
- 3.4 If the test results of “C” and “D” are valid, and the results of “A”, “B”, “C”, and “D” are within the reproducibility (R) of the test method then the laboratory shall average the results, which is referred to as “Y”:
- (a) If the result of “Y” is equal to or falls below the applicable limit required by Annex VI, the fuel oil shall be deemed to meet the requirements.
 - (b) If the result of “Y” is greater than the applicable limit required by Annex VI, then the fuel oil fails to meet the standards required by Annex VI.
- 3.5 If the results of “A”, “B”, “C” and “D” are not within the reproducibility (R) of the test method then the Administration may discard all of the test results and, at its discretion, repeat the entire testing process.
- 3.6 The results obtained from the verification procedure are final.

Appendix VII

Emission Control Areas (Regulation 13.6 and regulation 14.3)

1. The boundaries of emission control areas designated under regulations 13.6 and 14.3, other than the Baltic Sea and the North Sea areas, are set forth in this appendix.
2. The North American Area comprises:
 - (a) the sea area located off the Pacific coasts of the United States and Canada, enclosed by geodesic lines connecting the following coordinates:

word; as die resultaat van “X” egter groter is as die spesifikasielimiet met $0.59R$ (waar R die reproduseerbaarheid van die toetsmetode is), sal die brandolie as nie-voldoende beskou word en geen verdere toetsing is nodig nie.

3. *Verifiëringsprosedure stadium 2*

- 3.1 Indien fase 2 van die verifiëringsprosedure in ooreenstemming met paragraaf 2.5.2 hierbo nodig is, moet die bevoegde owerheid die MARPOL-monster na ’n tweede geakkrediteerde laboratorium stuur.
- 3.2 By ontvangs van die MARPOL-monster, moet die laboratorium—
- (a) die besonderhede van die herseëlnommer wat ooreenkomstig 2.3.3 hierbo toegepas is en die monsteretiket op die toetsrekord aanteken;
 - (b) twee submonsters uit die MARPOL-monster trek; en
 - (c) die MARPOL-monster herseël en die nuwe herseëlbesonderhede op die toetsrekord aanteken.
- 3.3 Die twee submonsters moet agtereenvolgens getoets word, ooreenkomstig die toetsmetode gespesifiseer in bylaag V (tweede voetnoot). Vir die doeleindes van hierdie verifiëringsprosedure, word na die resultate van die toetsanalise verwys as “C” en “D”:
- (a) Indien die resultate van “C” en “D” binne die herhaalbaarheid (r) van die toetsmetode is, sal die resultate as geldig beskou word.
 - (b) Indien die resultate van “C” en “D” nie binne die herhaalbaarheid (r) van die toetsmetode is nie, sal beide resultate verwerp word en twee nuwe submonsters moet deur die laboratorium geneem en ontleed word. Die monsterbottel moet herseël word in ooreenstemming met paragraaf 3.2.3 hierbo nadat die nuwe submonsters geneem is.
- 3.4 As die toetsresultate van “C” en “D” geldig is, en die resultate van “A”, “B”, “C” en “D” is binne die reproduseerbaarheid (R) van die toetsmetode, dan sal die laboratorium die resultate gemiddeld, waarna verwys word as “Y”:
- (a) Indien die resultaat van “Y” gelyk is aan of onder die toepaslike limiet wat deur Aanhangel VI vereis word, val, word die brandolie geag aan die vereistes te voldoen.
 - (b) Indien die resultaat van “Y” groter is as die toepaslike limiet wat deur Aanhangel VI vereis word, voldoen die brandolie nie aan die standaard wat deur Aanhangel VI.3.5 vereis word nie.
- 3.5 As die resultate van “A”, “B”, “C” en “D” nie binne die reproduseerbaarheid (R) van die toetsmetode is nie, kan die Administrasie al die toetsresultate weggooi en, na goëddunke, die hele toetsproses herhaal.
- 3.6 Die resultate verkry uit die verifiëringsprosedure is finaal.

Bylaag VII

Emissiebeheergebiede (Regulasie 13.6 en regulasie 14.3)

1. Die grense van emissiebeheergebiede wat kragtens regulasies 13.6 en 14.3 aangewys is, behalwe die Baltiese See en die Noord-See-gebied, word in hierdie bylaag uiteengesit.
2. Die Noord-Amerikaanse gebied bestaan uit:
 - (a) die seegebied geleë aan die Stille Oseaan-kus van die Verenigde State en Kanada, binne die geodesiese lyne wat die volgende koördinate verbind:

POINT	LATITUDE	LONGITUDE
1	32° 32′ 10″ N.	117° 06′ 11″ W.
2	32° 32′ 04″ N.	117° 07′ 29″ W.
3	32° 31′ 39″ N.	117° 14′ 20″ W.
4	32° 33′ 13″ N.	117° 15′ 50″ W.
5	32° 34′ 21″ N.	117° 22′ 01″ W.
6	32° 35′ 23″ N.	117° 27′ 53″ W.
7	32° 37′ 38″ N.	117° 49′ 34″ W.
8	31° 07′ 59″ N.	118° 36′ 21″ W.
9	30° 33′ 25″ N.	121° 47′ 29″ W.
10	31° 46′ 11″ N.	123° 17′ 22″ W.
11	32° 21′ 58″ N.	123° 50′ 44″ W.
12	32° 56′ 39″ N.	124° 11′ 47″ W.
13	33° 40′ 12″ N.	124° 27′ 15″ W.
14	34° 31′ 28″ N.	125° 16′ 52″ W.
15	35° 14′ 38″ N.	125° 43′ 23″ W.
16	35° 43′ 60″ N.	126° 18′ 53″ W.
17	36° 16′ 25″ N.	126° 45′ 30″ W.
18	37° 01′ 35″ N.	127° 07′ 18″ W.
19	37° 45′ 39″ N.	127° 38′ 02″ W.
20	38° 25′ 08″ N.	127° 52′ 60″ W.
21	39° 25′ 05″ N.	128° 31′ 23″ W.
22	40° 18′ 47″ N.	128° 45′ 46″ W.
23	41° 13′ 39″ N.	128° 40′ 22″ W.
24	42° 12′ 49″ N.	129° 00′ 38″ W.
25	42° 47′ 34″ N.	129° 05′ 42″ W.
26	43° 26′ 22″ N.	129° 01′ 26″ W.
27	44° 24′ 43″ N.	128° 41′ 23″ W.
28	45° 30′ 43″ N.	128° 40′ 02″ W.
29	46° 11′ 01″ N.	128° 49′ 01″ W.
30	46° 33′ 55″ N.	129° 04′ 29″ W.
31	47° 39′ 55″ N.	131° 15′ 41″ W.
32	48° 32′ 32″ N.	132° 41′ 00″ W.
33	48° 57′ 47″ N.	133° 14′ 47″ W.
34	49° 22′ 39″ N.	134° 15′ 51″ W.
35	50° 01′ 52″ N.	135° 19′ 01″ W.
36	51° 03′ 18″ N.	136° 45′ 45″ W.
37	51° 54′ 04″ N.	137° 41′ 54″ W.
38	52° 45′ 12″ N.	138° 20′ 14″ W.
39	53° 29′ 20″ N.	138° 40′ 36″ W.
40	53° 40′ 39″ N.	138° 48′ 53″ W.
41	54° 13′ 45″ N.	139° 32′ 38″ W.
42	54° 39′ 25″ N.	139° 56′ 19″ W.
43	55° 20′ 18″ N.	140° 55′ 45″ W.
44	56° 07′ 12″ N.	141° 36′ 18″ W.
45	56° 28′ 32″ N.	142° 17′ 19″ W.
46	56° 37′ 19″ N.	142° 48′ 57″ W.
47	58° 51′ 04″ N.	153° 15′ 03″ W.

PUNT	BREEDTEGRAAD	LENGTEGRAAD
1	32° 32′ 10″ N.	117° 06′ 11″ W.
2	32° 32′ 04″ N.	117° 07′ 29″ W.
3	32° 31′ 39″ N.	117° 14′ 20″ W.
4	32° 33′ 13″ N.	117° 15′ 50″ W.
5	32° 34′ 21″ N.	117° 22′ 01″ W.
6	32° 35′ 23″ N.	117° 27′ 53″ W.
7	32° 37′ 38″ N.	117° 49′ 34″ W.
8	31° 07′ 59″ N.	118° 36′ 21″ W.
9	30° 33′ 25″ N.	121° 47′ 29″ W.
10	31° 46′ 11″ N.	123° 17′ 22″ W.
11	32° 21′ 58″ N.	123° 50′ 44″ W.
12	32° 56′ 39″ N.	124° 11′ 47″ W.
13	33° 40′ 12″ N.	124° 27′ 15″ W.
14	34° 31′ 28″ N.	125° 16′ 52″ W.
15	35° 14′ 38″ N.	125° 43′ 23″ W.
16	35° 43′ 60″ N.	126° 18′ 53″ W.
17	36° 16′ 25″ N.	126° 45′ 30″ W.
18	37° 01′ 35″ N.	127° 07′ 18″ W.
19	37° 45′ 39″ N.	127° 38′ 02″ W.
20	38° 25′ 08″ N.	127° 52′ 60″ W.
21	39° 25′ 05″ N.	128° 31′ 23″ W.
22	40° 18′ 47″ N.	128° 45′ 46″ W.
23	41° 13′ 39″ N.	128° 40′ 22″ W.
24	42° 12′ 49″ N.	129° 00′ 38″ W.
25	42° 47′ 34″ N.	129° 05′ 42″ W.
26	43° 26′ 22″ N.	129° 01′ 26″ W.
27	44° 24′ 43″ N.	128° 41′ 23″ W.
28	45° 30′ 43″ N.	128° 40′ 02″ W.
29	46° 11′ 01″ N.	128° 49′ 01″ W.
30	46° 33′ 55″ N.	129° 04′ 29″ W.
31	47° 39′ 55″ N.	131° 15′ 41″ W.
32	48° 32′ 32″ N.	132° 41′ 00″ W.
33	48° 57′ 47″ N.	133° 14′ 47″ W.
34	49° 22′ 39″ N.	134° 15′ 51″ W.
35	50° 01′ 52″ N.	135° 19′ 01″ W.
36	51° 03′ 18″ N.	136° 45′ 45″ W.
37	51° 54′ 04″ N.	137° 41′ 54″ W.
38	52° 45′ 12″ N.	138° 20′ 14″ W.
39	53° 29′ 20″ N.	138° 40′ 36″ W.
40	53° 40′ 39″ N.	138° 48′ 53″ W.
41	54° 13′ 45″ N.	139° 32′ 38″ W.
42	54° 39′ 25″ N.	139° 56′ 19″ W.
43	55° 20′ 18″ N.	140° 55′ 45″ W.
44	56° 07′ 12″ N.	141° 36′ 18″ W.
45	56° 28′ 32″ N.	142° 17′ 19″ W.
46	56° 37′ 19″ N.	142° 48′ 57″ W.
47	58° 51′ 04″ N.	153° 15′ 03″ W.

(b) the sea areas located off the Atlantic coasts of the United States, Canada, and France (Saint-Pierre-et-Miquelon) and the Gulf of Mexico coast of the United States enclosed by geodesic lines connecting the following coordinates:

POINT	LATITUDE	LONGITUDE
1	60° 00' 00'' N.	64° 09' 36'' W.
2	60° 00' 00'' N.	56° 43' 00'' W.
3	58° 54' 01'' N.	55° 38' 05'' W.
4	57° 50' 52'' N.	55° 03' 47'' W.
5	57° 35' 13'' N.	54° 00' 59'' W.
6	57° 14' 20'' N.	53° 07' 58'' W.
7	56° 48' 09'' N.	52° 23' 29'' W.
8	56° 18' 13'' N.	51° 49' 42'' W.
9	54° 23' 21'' N.	50° 17' 44'' W.
10	53° 44' 54'' N.	50° 07' 17'' W.
11	53° 04' 59'' N.	50° 10' 05'' W.
12	52° 20' 06'' N.	49° 57' 09'' W.
13	51° 34' 20'' N.	48° 52' 45'' W.
14	50° 40' 15'' N.	48° 16' 04'' W.
15	50° 02' 28'' N.	48° 07' 03'' W.
16	49° 24' 03'' N.	48° 09' 35'' W.
17	48° 39' 22'' N.	47° 55' 17'' W.
18	47° 24' 25'' N.	47° 46' 56'' W.
19	46° 35' 12'' N.	48° 00' 54'' W.
20	45° 19' 45'' N.	48° 43' 28'' W.
21	44° 43' 38'' N.	49° 16' 50'' W.
22	44° 16' 38'' N.	49° 51' 23'' W.
23	43° 53' 15'' N.	50° 34' 01'' W.
24	43° 36' 06'' N.	51° 20' 41'' W.
25	43° 23' 59'' N.	52° 17' 22'' W.
26	43° 19' 50'' N.	53° 20' 13'' W.
27	43° 21' 14'' N.	54° 09' 20'' W.
28	43° 29' 41'' N.	55° 07' 41'' W.
29	42° 40' 12'' N.	55° 31' 44'' W.
30	41° 58' 19'' N.	56° 09' 34'' W.
31	41° 20' 21'' N.	57° 05' 13'' W.
32	40° 55' 34'' N.	58° 02' 55'' W.
33	40° 41' 38'' N.	59° 05' 18'' W.
34	40° 38' 33'' N.	60° 12' 20'' W.
35	40° 45' 46'' N.	61° 14' 03'' W.
36	41° 04' 52'' N.	62° 17' 49'' W.
37	40° 36' 55'' N.	63° 10' 49'' W.
38	40° 17' 32'' N.	64° 08' 37'' W.
39	40° 07' 46'' N.	64° 59' 31'' W.
40	40° 05' 44'' N.	65° 53' 07'' W.
41	39° 58' 05'' N.	65° 59' 51'' W.
42	39° 28' 24'' N.	66° 21' 14'' W.
43	39° 01' 54'' N.	66° 48' 33'' W.
44	38° 39' 16'' N.	67° 20' 59'' W.
45	38° 19' 20'' N.	68° 02' 01'' W.
46	38° 05' 29'' N.	68° 46' 55'' W.
47	37° 58' 14'' N.	69° 34' 07'' W.
48	37° 57' 47'' N.	70° 24' 09'' W.
49	37° 52' 46'' N.	70° 37' 50'' W.
50	37° 18' 37'' N.	71° 08' 33'' W.
51	36° 32' 25'' N.	71° 33' 59'' W.
52	35° 34' 58'' N.	71° 26' 02'' W.
53	34° 33' 10'' N.	71° 37' 04'' W.
54	33° 54' 49'' N.	71° 52' 35'' W.
55	33° 19' 23'' N.	72° 17' 12'' W.
56	32° 45' 31'' N.	72° 54' 05'' W.
57	31° 55' 13'' N.	74° 12' 02'' W.
58	31° 27' 14'' N.	75° 15' 20'' W.
59	31° 03' 16'' N.	75° 51' 18'' W.
60	30° 45' 42'' N.	76° 31' 38'' W.
61	30° 12' 48'' N.	77° 18' 29'' W.
62	29° 25' 17'' N.	76° 56' 42'' W.
63	28° 36' 59'' N.	76° 47' 60'' W.
64	28° 17' 13'' N.	76° 40' 10'' W.
65	28° 17' 12'' N.	79° 11' 23'' W.
66	27° 52' 56'' N.	79° 28' 35'' W.
67	27° 26' 01'' N.	79° 31' 38'' W.
68	27° 16' 13'' N.	79° 34' 18'' W.
69	27° 11' 54'' N.	79° 34' 56'' W.
70	27° 05' 59'' N.	79° 35' 19'' W.

(b) die seegebiede geleë aan die Atlantiese kus van die Verenigde State, Kanada en Prankry (Sint Pierre en Miquelon) en die Golf van Meksiko-kus van die Verenigde State, binne die geodesiese lyne wat die volgende koördinate verbind:

PUNT	BREEDTEGRAAD	LENGTEGRAAD
1	60° 00' 00'' N.	64° 09' 36'' W.
2	60° 00' 00'' N.	56° 43' 00'' W.
3	58° 54' 01'' N.	55° 38' 05'' W.
4	57° 50' 52'' N.	55° 03' 47'' W.
5	57° 35' 13'' N.	54° 00' 59'' W.
6	57° 14' 20'' N.	53° 07' 58'' W.
7	56° 48' 09'' N.	52° 23' 29'' W.
8	56° 18' 13'' N.	51° 49' 42'' W.
9	54° 23' 21'' N.	50° 17' 44'' W.
10	53° 44' 54'' N.	50° 07' 17'' W.
11	53° 04' 59'' N.	50° 10' 05'' W.
12	52° 20' 06'' N.	49° 57' 09'' W.
13	51° 34' 20'' N.	48° 52' 45'' W.
14	50° 40' 15'' N.	48° 16' 04'' W.
15	50° 02' 28'' N.	48° 07' 03'' W.
16	49° 24' 03'' N.	48° 09' 35'' W.
17	48° 39' 22'' N.	47° 55' 17'' W.
18	47° 24' 25'' N.	47° 46' 56'' W.
19	46° 35' 12'' N.	48° 00' 54'' W.
20	45° 19' 45'' N.	48° 43' 28'' W.
21	44° 43' 38'' N.	49° 16' 50'' W.
22	44° 16' 38'' N.	49° 51' 23'' W.
23	43° 53' 15'' N.	50° 34' 01'' W.
24	43° 36' 06'' N.	51° 20' 41'' W.
25	43° 23' 59'' N.	52° 17' 22'' W.
26	43° 19' 50'' N.	53° 20' 13'' W.
27	43° 21' 14'' N.	54° 09' 20'' W.
28	43° 29' 41'' N.	55° 07' 41'' W.
29	42° 40' 12'' N.	55° 31' 44'' W.
30	41° 58' 19'' N.	56° 09' 34'' W.
31	41° 20' 21'' N.	57° 05' 13'' W.
32	40° 55' 34'' N.	58° 02' 55'' W.
33	40° 41' 38'' N.	59° 05' 18'' W.
34	40° 38' 33'' N.	60° 12' 20'' W.
35	40° 45' 46'' N.	61° 14' 03'' W.
36	41° 04' 52'' N.	62° 17' 49'' W.
37	40° 36' 55'' N.	63° 10' 49'' W.
38	40° 17' 32'' N.	64° 08' 37'' W.
39	40° 07' 46'' N.	64° 59' 31'' W.
40	40° 05' 44'' N.	65° 53' 07'' W.
41	39° 58' 05'' N.	65° 59' 51'' W.
42	39° 28' 24'' N.	66° 21' 14'' W.
43	39° 01' 54'' N.	66° 48' 33'' W.
44	38° 39' 16'' N.	67° 20' 59'' W.
45	38° 19' 20'' N.	68° 02' 01'' W.
46	38° 05' 29'' N.	68° 46' 55'' W.
47	37° 58' 14'' N.	69° 34' 07'' W.
48	37° 57' 47'' N.	70° 24' 09'' W.
49	37° 52' 46'' N.	70° 37' 50'' W.
50	37° 18' 37'' N.	71° 08' 33'' W.
51	36° 32' 25'' N.	71° 33' 59'' W.
52	35° 34' 58'' N.	71° 26' 02'' W.
53	34° 33' 10'' N.	71° 37' 04'' W.
54	33° 54' 49'' N.	71° 52' 35'' W.
55	33° 19' 23'' N.	72° 17' 12'' W.
56	32° 45' 31'' N.	72° 54' 05'' W.
57	31° 55' 13'' N.	74° 12' 02'' W.
58	31° 27' 14'' N.	75° 15' 20'' W.
59	31° 03' 16'' N.	75° 51' 18'' W.
60	30° 45' 42'' N.	76° 31' 38'' W.
61	30° 12' 48'' N.	77° 18' 29'' W.
62	29° 25' 17'' N.	76° 56' 42'' W.
63	28° 36' 59'' N.	76° 47' 60'' W.
64	28° 17' 13'' N.	76° 40' 10'' W.
65	28° 17' 12'' N.	79° 11' 23'' W.
66	27° 52' 56'' N.	79° 28' 35'' W.
67	27° 26' 01'' N.	79° 31' 38'' W.
68	27° 16' 13'' N.	79° 34' 18'' W.
69	27° 11' 54'' N.	79° 34' 56'' W.
70	27° 05' 59'' N.	79° 35' 19'' W.

POINT	LATITUDE	LONGITUDE
71	27° 00′ 28″ N.	79° 35′ 17″ W.
72	26° 55′ 16″ N.	79° 34′ 39″ W.
73	26° 53′ 58″ N.	79° 34′ 27″ W.
74	26° 45′ 46″ N.	79° 32′ 41″ W.
75	26° 44′ 30″ N.	79° 32′ 23″ W.
76	26° 43′ 40″ N.	79° 32′ 20″ W.
77	26° 41′ 12″ N.	79° 32′ 01″ W.
78	26° 38′ 13″ N.	79° 31′ 32″ W.
79	26° 36′ 30″ N.	79° 31′ 06″ W.
80	26° 35′ 21″ N.	79° 30′ 50″ W.
81	26° 34′ 51″ N.	79° 30′ 46″ W.
82	26° 34′ 11″ N.	79° 30′ 38″ W.
83	26° 31′ 12″ N.	79° 30′ 15″ W.
84	26° 29′ 05″ N.	79° 29′ 53″ W.
85	26° 25′ 31″ N.	79° 29′ 58″ W.
86	26° 23′ 29″ N.	79° 29′ 55″ W.
87	26° 23′ 21″ N.	79° 29′ 54″ W.
88	26° 18′ 57″ N.	79° 31′ 55″ W.
89	26° 15′ 26″ N.	79° 33′ 17″ W.
90	26° 15′ 13″ N.	79° 33′ 23″ W.
91	26° 08′ 09″ N.	79° 35′ 53″ W.
92	26° 07′ 47″ N.	79° 36′ 09″ W.
93	26° 06′ 59″ N.	79° 36′ 35″ W.
94	26° 02′ 52″ N.	79° 38′ 22″ W.
95	25° 59′ 30″ N.	79° 40′ 03″ W.
96	25° 59′ 16″ N.	79° 40′ 08″ W.
97	25° 57′ 48″ N.	79° 40′ 38″ W.
98	25° 56′ 18″ N.	79° 41′ 06″ W.
99	25° 54′ 04″ N.	79° 41′ 38″ W.
100	25° 53′ 24″ N.	79° 41′ 46″ W.
101	25° 51′ 54″ N.	79° 41′ 59″ W.
102	25° 49′ 33″ N.	79° 42′ 16″ W.
103	25° 48′ 24″ N.	79° 42′ 23″ W.
104	25° 48′ 20″ N.	79° 42′ 24″ W.
105	25° 46′ 26″ N.	79° 42′ 44″ W.
106	25° 46′ 16″ N.	79° 42′ 45″ W.
107	25° 43′ 40″ N.	79° 42′ 59″ W.
108	25° 42′ 31″ N.	79° 42′ 48″ W.
109	25° 40′ 37″ N.	79° 42′ 27″ W.
110	25° 37′ 24″ N.	79° 42′ 27″ W.
111	25° 37′ 08″ N.	79° 42′ 27″ W.
112	25° 31′ 03″ N.	79° 42′ 12″ W.
113	25° 27′ 59″ N.	79° 42′ 11″ W.
114	25° 24′ 04″ N.	79° 42′ 12″ W.
115	25° 22′ 21″ N.	79° 42′ 20″ W.
116	25° 21′ 29″ N.	79° 42′ 08″ W.
117	25° 16′ 52″ N.	79° 41′ 24″ W.
118	25° 15′ 57″ N.	79° 41′ 31″ W.
119	25° 10′ 39″ N.	79° 41′ 31″ W.
120	25° 09′ 51″ N.	79° 41′ 36″ W.
121	25° 09′ 03″ N.	79° 41′ 45″ W.
122	25° 03′ 55″ N.	79° 42′ 29″ W.
123	25° 02′ 60″ N.	79° 42′ 56″ W.
124	25° 00′ 30″ N.	79° 44′ 05″ W.
125	24° 59′ 03″ N.	79° 44′ 48″ W.
126	24° 55′ 28″ N.	79° 45′ 57″ W.
127	24° 44′ 18″ N.	79° 49′ 24″ W.
128	24° 43′ 04″ N.	79° 49′ 38″ W.
129	24° 42′ 36″ N.	79° 50′ 50″ W.
130	24° 41′ 47″ N.	79° 52′ 57″ W.
131	24° 38′ 32″ N.	79° 59′ 58″ W.
132	24° 36′ 27″ N.	80° 03′ 51″ W.
133	24° 33′ 18″ N.	80° 12′ 43″ W.
134	24° 33′ 05″ N.	80° 13′ 21″ W.
135	24° 32′ 13″ N.	80° 15′ 16″ W.
136	24° 31′ 27″ N.	80° 16′ 55″ W.
137	24° 30′ 57″ N.	80° 17′ 47″ W.
138	24° 30′ 14″ N.	80° 19′ 21″ W.
139	24° 30′ 06″ N.	80° 19′ 44″ W.
140	24° 29′ 38″ N.	80° 21′ 05″ W.
141	24° 28′ 18″ N.	80° 24′ 35″ W.
142	24° 28′ 06″ N.	80° 25′ 10″ W.
143	24° 27′ 23″ N.	80° 27′ 20″ W.
144	24° 26′ 30″ N.	80° 29′ 30″ W.
145	24° 25′ 07″ N.	80° 32′ 22″ W.
146	24° 23′ 30″ N.	80° 36′ 09″ W.
147	24° 22′ 33″ N.	80° 38′ 56″ W.
148	24° 22′ 07″ N.	80° 39′ 51″ W.
149	24° 19′ 31″ N.	80° 45′ 21″ W.
150	24° 19′ 16″ N.	80° 45′ 47″ W.
151	24° 18′ 38″ N.	80° 46′ 49″ W.
152	24° 18′ 35″ N.	80° 46′ 54″ W.
153	24° 09′ 51″ N.	80° 59′ 47″ W.
154	24° 09′ 48″ N.	80° 59′ 51″ W.

PUNT	BREEDTEGRAAD	LENGTEGRAAD
71	27° 00′ 28″ N.	79° 35′ 17″ W.
72	26° 55′ 16″ N.	79° 34′ 39″ W.
73	26° 53′ 58″ N.	79° 34′ 27″ W.
74	26° 45′ 46″ N.	79° 32′ 41″ W.
75	26° 44′ 30″ N.	79° 32′ 23″ W.
76	26° 43′ 40″ N.	79° 32′ 20″ W.
77	26° 41′ 12″ N.	79° 32′ 01″ W.
78	26° 38′ 13″ N.	79° 31′ 32″ W.
79	26° 36′ 30″ N.	79° 31′ 06″ W.
80	26° 35′ 21″ N.	79° 30′ 50″ W.
81	26° 34′ 51″ N.	79° 30′ 46″ W.
82	26° 34′ 11″ N.	79° 30′ 38″ W.
83	26° 31′ 12″ N.	79° 30′ 15″ W.
84	26° 29′ 05″ N.	79° 29′ 53″ W.
85	26° 25′ 31″ N.	79° 29′ 58″ W.
86	26° 23′ 29″ N.	79° 29′ 55″ W.
87	26° 23′ 21″ N.	79° 29′ 54″ W.
88	26° 18′ 57″ N.	79° 31′ 55″ W.
89	26° 15′ 26″ N.	79° 33′ 17″ W.
90	26° 15′ 13″ N.	79° 33′ 23″ W.
91	26° 08′ 09″ N.	79° 35′ 53″ W.
92	26° 07′ 47″ N.	79° 36′ 09″ W.
93	26° 06′ 59″ N.	79° 36′ 35″ W.
94	26° 02′ 52″ N.	79° 38′ 22″ W.
95	25° 59′ 30″ N.	79° 40′ 03″ W.
96	25° 59′ 16″ N.	79° 40′ 08″ W.
97	25° 57′ 48″ N.	79° 40′ 38″ W.
98	25° 56′ 18″ N.	79° 41′ 06″ W.
99	25° 54′ 04″ N.	79° 41′ 38″ W.
100	25° 53′ 24″ N.	79° 41′ 46″ W.
101	25° 51′ 54″ N.	79° 41′ 59″ W.
102	25° 49′ 33″ N.	79° 42′ 16″ W.
103	25° 48′ 24″ N.	79° 42′ 23″ W.
104	25° 48′ 20″ N.	79° 42′ 24″ W.
105	25° 46′ 26″ N.	79° 42′ 44″ W.
106	25° 46′ 16″ N.	79° 42′ 45″ W.
107	25° 43′ 40″ N.	79° 42′ 59″ W.
108	25° 42′ 31″ N.	79° 42′ 48″ W.
109	25° 40′ 37″ N.	79° 42′ 27″ W.
110	25° 37′ 24″ N.	79° 42′ 27″ W.
111	25° 37′ 08″ N.	79° 42′ 27″ W.
112	25° 31′ 03″ N.	79° 42′ 12″ W.
113	25° 27′ 59″ N.	79° 42′ 11″ W.
114	25° 24′ 04″ N.	79° 42′ 12″ W.
115	25° 22′ 21″ N.	79° 42′ 20″ W.
116	25° 21′ 29″ N.	79° 42′ 08″ W.
117	25° 16′ 52″ N.	79° 41′ 24″ W.
118	25° 15′ 57″ N.	79° 41′ 31″ W.
119	25° 10′ 39″ N.	79° 41′ 31″ W.
120	25° 09′ 51″ N.	79° 41′ 36″ W.
121	25° 09′ 03″ N.	79° 41′ 45″ W.
122	25° 03′ 55″ N.	79° 42′ 29″ W.
123	25° 02′ 60″ N.	79° 42′ 56″ W.
124	25° 00′ 30″ N.	79° 44′ 05″ W.
125	24° 59′ 03″ N.	79° 44′ 48″ W.
126	24° 55′ 28″ N.	79° 45′ 57″ W.
127	24° 44′ 18″ N.	79° 49′ 24″ W.
128	24° 43′ 04″ N.	79° 49′ 38″ W.
129	24° 42′ 36″ N.	79° 50′ 50″ W.
130	24° 41′ 47″ N.	79° 52′ 57″ W.
131	24° 38′ 32″ N.	79° 59′ 58″ W.
132	24° 36′ 27″ N.	80° 03′ 51″ W.
133	24° 33′ 18″ N.	80° 12′ 43″ W.
134	24° 33′ 05″ N.	80° 13′ 21″ W.
135	24° 32′ 13″ N.	80° 15′ 16″ W.
136	24° 31′ 27″ N.	80° 16′ 55″ W.
137	24° 30′ 57″ N.	80° 17′ 47″ W.
138	24° 30′ 14″ N.	80° 19′ 21″ W.
139	24° 30′ 06″ N.	80° 19′ 44″ W.
140	24° 29′ 38″ N.	80° 21′ 05″ W.
141	24° 28′ 18″ N.	80° 24′ 35″ W.
142	24° 28′ 06″ N.	80° 25′ 10″ W.
143	24° 27′ 23″ N.	80° 27′ 20″ W.
144	24° 26′ 30″ N.	80° 29′ 30″ W.
145	24° 25′ 07″ N.	80° 32′ 22″ W.
146	24° 23′ 30″ N.	80° 36′ 09″ W.
147	24° 22′ 33″ N.	80° 38′ 56″ W.
148	24° 22′ 07″ N.	80° 39′ 51″ W.
149	24° 19′ 31″ N.	80° 45′ 21″ W.
150	24° 19′ 16″ N.	80° 45′ 47″ W.
151	24° 18′ 38″ N.	80° 46′ 49″ W.
152	24° 18′ 35″ N.	80° 46′ 54″ W.
153	24° 09′ 51″ N.	80° 59′ 47″ W.
154	24° 09′ 48″ N.	80° 59′ 51″ W.

POINT	LATITUDE	LONGITUDE
155	24° 08' 58'' N.	81° 01' 07'' W.
156	24° 08' 30'' N.	81° 01' 51'' W.
157	24° 08' 26'' N.	81° 01' 57'' W.
158	24° 07' 28'' N.	81° 03' 06'' W.
159	24° 02' 20'' N.	81° 09' 05'' W.
160	23° 59' 60'' N.	81° 11' 16'' W.
161	23° 55' 32'' N.	81° 12' 55'' W.
162	23° 53' 52'' N.	81° 19' 43'' W.
163	23° 50' 52'' N.	81° 29' 59'' W.
164	23° 50' 02'' N.	81° 39' 59'' W.
165	23° 49' 05'' N.	81° 49' 59'' W.
166	23° 49' 05'' N.	82° 00' 11'' W.
167	23° 49' 42'' N.	82° 09' 59'' W.
168	23° 51' 14'' N.	82° 24' 59'' W.
169	23° 51' 14'' N.	82° 39' 59'' W.
170	23° 49' 42'' N.	82° 48' 53'' W.
171	23° 49' 32'' N.	82° 51' 11'' W.
172	23° 49' 24'' N.	82° 59' 59'' W.
173	23° 49' 52'' N.	83° 14' 59'' W.
174	23° 51' 22'' N.	83° 25' 49'' W.
175	23° 52' 27'' N.	83° 33' 01'' W.
176	23° 54' 04'' N.	83° 41' 35'' W.
177	23° 55' 47'' N.	83° 48' 11'' W.
178	23° 58' 38'' N.	83° 59' 59'' W.
179	24° 09' 37'' N.	84° 29' 27'' W.
180	24° 13' 20'' N.	84° 38' 39'' W.
181	24° 16' 41'' N.	84° 46' 07'' W.
182	24° 23' 30'' N.	84° 59' 59'' W.
183	24° 26' 37'' N.	85° 06' 19'' W.
184	24° 38' 57'' N.	85° 31' 54'' W.
185	24° 44' 17'' N.	85° 43' 11'' W.
186	24° 53' 57'' N.	85° 59' 59'' W.
187	25° 10' 44'' N.	86° 30' 07'' W.
188	25° 43' 15'' N.	86° 21' 14'' W.
189	26° 13' 13'' N.	86° 06' 45'' W.
190	26° 27' 22'' N.	86° 13' 15'' W.
191	26° 33' 46'' N.	86° 37' 07'' W.
192	26° 01' 24'' N.	87° 29' 35'' W.
193	25° 42' 25'' N.	88° 33' 00'' W.
194	25° 46' 54'' N.	90° 29' 41'' W.
195	25° 44' 39'' N.	90° 47' 05'' W.
196	25° 51' 43'' N.	91° 52' 50'' W.
197	26° 17' 44'' N.	93° 03' 59'' W.
198	25° 59' 55'' N.	93° 33' 52'' W.
199	26° 00' 32'' N.	95° 39' 27'' W.
200	26° 00' 33'' N.	96° 48' 30'' W.
201	25° 58' 32'' N.	96° 55' 28'' W.
202	25° 58' 15'' N.	96° 58' 41'' W.
203	25° 57' 58'' N.	97° 01' 54'' W.
204	25° 57' 41'' N.	97° 05' 08'' W.
205	25° 57' 24'' N.	97° 08' 21'' W.
206	25° 57' 24'' N.	97° 08' 47'' W.

PUNT	BREEDTEGRAAD	LENGTEGRAAD
155	24° 08' 58'' N.	81° 01' 07'' W.
156	24° 08' 30'' N.	81° 01' 51'' W.
157	24° 08' 26'' N.	81° 01' 57'' W.
158	24° 07' 28'' N.	81° 03' 06'' W.
159	24° 02' 20'' N.	81° 09' 05'' W.
160	23° 59' 60'' N.	81° 11' 16'' W.
161	23° 55' 32'' N.	81° 12' 55'' W.
162	23° 53' 52'' N.	81° 19' 43'' W.
163	23° 50' 52'' N.	81° 29' 59'' W.
164	23° 50' 02'' N.	81° 39' 59'' W.
165	23° 49' 05'' N.	81° 49' 59'' W.
166	23° 49' 05'' N.	82° 00' 11'' W.
167	23° 49' 42'' N.	82° 09' 59'' W.
168	23° 51' 14'' N.	82° 24' 59'' W.
169	23° 51' 14'' N.	82° 39' 59'' W.
170	23° 49' 42'' N.	82° 48' 53'' W.
171	23° 49' 32'' N.	82° 51' 11'' W.
172	23° 49' 24'' N.	82° 59' 59'' W.
173	23° 49' 52'' N.	83° 14' 59'' W.
174	23° 51' 22'' N.	83° 25' 49'' W.
175	23° 52' 27'' N.	83° 33' 01'' W.
176	23° 54' 04'' N.	83° 41' 35'' W.
177	23° 55' 47'' N.	83° 48' 11'' W.
178	23° 58' 38'' N.	83° 59' 59'' W.
179	24° 09' 37'' N.	84° 29' 27'' W.
180	24° 13' 20'' N.	84° 38' 39'' W.
181	24° 16' 41'' N.	84° 46' 07'' W.
182	24° 23' 30'' N.	84° 59' 59'' W.
183	24° 26' 37'' N.	85° 06' 19'' W.
184	24° 38' 57'' N.	85° 31' 54'' W.
185	24° 44' 17'' N.	85° 43' 11'' W.
186	24° 53' 57'' N.	85° 59' 59'' W.
187	25° 10' 44'' N.	86° 30' 07'' W.
188	25° 43' 15'' N.	86° 21' 14'' W.
189	26° 13' 13'' N.	86° 06' 45'' W.
190	26° 27' 22'' N.	86° 13' 15'' W.
191	26° 33' 46'' N.	86° 37' 07'' W.
192	26° 01' 24'' N.	87° 29' 35'' W.
193	25° 42' 25'' N.	88° 33' 00'' W.
194	25° 46' 54'' N.	90° 29' 41'' W.
195	25° 44' 39'' N.	90° 47' 05'' W.
196	25° 51' 43'' N.	91° 52' 50'' W.
197	26° 17' 44'' N.	93° 03' 59'' W.
198	25° 59' 55'' N.	93° 33' 52'' W.
199	26° 00' 32'' N.	95° 39' 27'' W.
200	26° 00' 33'' N.	96° 48' 30'' W.
201	25° 58' 32'' N.	96° 55' 28'' W.
202	25° 58' 15'' N.	96° 58' 41'' W.
203	25° 57' 58'' N.	97° 01' 54'' W.
204	25° 57' 41'' N.	97° 05' 08'' W.
205	25° 57' 24'' N.	97° 08' 21'' W.
206	25° 57' 24'' N.	97° 08' 47'' W.

(c) the sea area located off the coasts of the Hawaiian Islands of Hawaii, Maui, Oahu, Moloka i, Ni ihau, Kaua i, L na i, and Kaho olawe, enclosed by geodesic lines connecting the following coordinates:

POINT	LATITUDE	LONGITUDE
1	22° 32' 54'' N.	153° 00' 33'' W.
2	23° 06' 05'' N.	153° 28' 36'' W.
3	23° 32' 11'' N.	154° 02' 12'' W.
4	23° 51' 47'' N.	154° 36' 48'' W.
5	24° 21' 49'' N.	155° 51' 13'' W.
6	24° 41' 47'' N.	156° 27' 27'' W.
7	24° 57' 33'' N.	157° 22' 17'' W.
8	25° 13' 41'' N.	157° 54' 13'' W.
9	25° 25' 31'' N.	158° 30' 36'' W.
10	25° 31' 19'' N.	159° 09' 47'' W.
11	25° 30' 31'' N.	159° 54' 21'' W.
12	25° 21' 53'' N.	160° 39' 53'' W.
13	25° 00' 06'' N.	161° 38' 33'' W.
14	24° 40' 49'' N.	162° 13' 13'' W.
15	24° 15' 53'' N.	162° 43' 08'' W.
16	23° 40' 50'' N.	163° 13' 00'' W.
17	23° 03' 20'' N.	163° 32' 58'' W.
18	22° 20' 09'' N.	163° 44' 41'' W.
19	21° 36' 45'' N.	163° 46' 03'' W.
20	20° 55' 26'' N.	163° 37' 44'' W.
21	20° 13' 34'' N.	163° 19' 13'' W.
22	19° 39' 03'' N.	162° 53' 48'' W.
23	19° 09' 43'' N.	162° 20' 35'' W.
24	18° 39' 16'' N.	161° 19' 14'' W.
25	18° 30' 31'' N.	160° 38' 30'' W.
26	18° 29' 31'' N.	159° 56' 17'' W.
27	18° 10' 41'' N.	159° 14' 08'' W.
28	17° 31' 17'' N.	158° 56' 55'' W.
29	16° 54' 06'' N.	158° 30' 29'' W.
30	16° 25' 49'' N.	157° 59' 25'' W.
31	15° 59' 57'' N.	157° 17' 35'' W.
32	15° 40' 37'' N.	156° 21' 06'' W.
33	15° 37' 36'' N.	155° 22' 16'' W.
34	15° 43' 46'' N.	154° 46' 37'' W.
35	15° 55' 32'' N.	154° 13' 05'' W.
36	16° 46' 27'' N.	152° 49' 11'' W.
37	17° 33' 42'' N.	152° 00' 32'' W.
38	18° 30' 16'' N.	151° 30' 24'' W.
39	19° 02' 47'' N.	151° 22' 17'' W.
40	19° 34' 46'' N.	151° 19' 47'' W.
41	20° 07' 42'' N.	151° 22' 58'' W.
42	20° 38' 43'' N.	151° 31' 36'' W.
43	21° 29' 09'' N.	151° 59' 50'' W.
44	22° 06' 58'' N.	152° 31' 25'' W.
45	22° 32' 54'' N.	153° 00' 33'' W.

(c) die seegebied aan die kuste van die Hawaii-eilande van Hawaii, Maui, Oahu, Moloka i, Ni ihau, Kaua i, L na i, and Kaho olawe, binne die geodesiese lyne wat die volgende koördinate verbind:

PUNT	BREEDTEGRAAD	LENGTEGRAAD
1	22° 32′ 54″ N.	153° 00′ 33″ W.
2	23° 06′ 05″ N.	153° 28′ 36″ W.
3	23° 32′ 11″ N.	154° 02′ 12″ W.
4	23° 51′ 47″ N.	154° 36′ 48″ W.
5	24° 21′ 49″ N.	155° 51′ 13″ W.
6	24° 41′ 47″ N.	156° 27′ 27″ W.
7	24° 57′ 33″ N.	157° 22′ 17″ W.
8	25° 13′ 41″ N.	157° 54′ 13″ W.
9	25° 25′ 31″ N.	158° 30′ 36″ W.
10	25° 31′ 19″ N.	159° 09′ 47″ W.
11	25° 30′ 31″ N.	159° 54′ 21″ W.
12	25° 21′ 53″ N.	160° 39′ 53″ W.
13	25° 00′ 06″ N.	161° 38′ 33″ W.
14	24° 40′ 49″ N.	162° 13′ 13″ W.
15	24° 15′ 53″ N.	162° 43′ 08″ W.
16	23° 40′ 50″ N.	163° 13′ 00″ W.
17	23° 03′ 20″ N.	163° 32′ 58″ W.
18	22° 20′ 09″ N.	163° 44′ 41″ W.
19	21° 36′ 45″ N.	163° 46′ 03″ W.
20	20° 55′ 26″ N.	163° 37′ 44″ W.
21	20° 13′ 34″ N.	163° 19′ 13″ W.
22	19° 39′ 03″ N.	162° 53′ 48″ W.
23	19° 09′ 43″ N.	162° 20′ 35″ W.
24	18° 39′ 16″ N.	161° 19′ 14″ W.
25	18° 30′ 31″ N.	160° 38′ 30″ W.
26	18° 29′ 31″ N.	159° 56′ 17″ W.
27	18° 10′ 41″ N.	159° 14′ 08″ W.
28	17° 31′ 17″ N.	158° 56′ 55″ W.
29	16° 54′ 06″ N.	158° 30′ 29″ W.
30	16° 25′ 49″ N.	157° 59′ 25″ W.
31	15° 59′ 57″ N.	157° 17′ 35″ W.
32	15° 40′ 37″ N.	156° 21′ 06″ W.
33	15° 37′ 36″ N.	155° 22′ 16″ W.
34	15° 43′ 46″ N.	154° 46′ 37″ W.
35	15° 55′ 32″ N.	154° 13′ 05″ W.
36	16° 46′ 27″ N.	152° 49′ 11″ W.
37	17° 33′ 42″ N.	152° 00′ 32″ W.
38	18° 30′ 16″ N.	151° 30′ 24″ W.
39	19° 02′ 47″ N.	151° 22′ 17″ W.
40	19° 34′ 46″ N.	151° 19′ 47″ W.
41	20° 07′ 42″ N.	151° 22′ 58″ W.
42	20° 38′ 43″ N.	151° 31′ 36″ W.
43	21° 29′ 09″ N.	151° 59′ 50″ W.
44	22° 06′ 58″ N.	152° 31′ 25″ W.
45	22° 32′ 54″ N.	153° 00′ 33″ W.

CONTINUES ON PAGE 130 OF BOOK 2

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29 January 2025

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PART 2 OF 2

THE PRESIDENCY

No. 5790 **29 January 2025**

It is hereby notified that the President has assented to the following Act, which is hereby published for general information:—

Act No. 36 of 2024: Marine Pollution (Prevention of Pollution from ships) Amendment Act, 2024

DIE PRESIDENSIE

No. 5790 **29 Januarie 2025**

Hierby word bekend gemaak dat die President sy goedkeuring geheg het aan die onderstaande Wet wat hierby ter algemene inligting gepubliseer word:—

No. 36 van 2024: Wysigingswet op Mariene Besoedeling (Voorkoming van Besoedeling Deur skepe), 2024

ISSN 1682-5845



9 771682 584003



AIDS HELPLINE: 0800-0123-22 Prevention is the cure

3. The United States Caribbean Sea area includes:
- (a)

the sea area located off the Atlantic and Caribbean coasts of the Commonwealth of Puerto Rico and the United States Virgin Islands, enclosed by geodesic lines connecting the following coordinates:

POINT	LATITUDE	LONGITUDE
1	17° 18' 37'' N.	67° 32' 14'' W.
2	19° 11' 14'' N.	67° 26' 45'' W.
3	19° 30' 28'' N.	65° 16' 48'' W.
4	19° 12' 25'' N.	65° 6' 8'' W.
5	18° 45' 13'' N.	65° 0' 22'' W.
6	18° 41' 14'' N.	64° 59' 33'' W.
7	18° 29' 22'' N.	64° 53' 51'' W.
8	18° 27' 35'' N.	64° 53' 22'' W.
9	18° 25' 21'' N.	64° 52' 39'' W.
10	18° 24' 30'' N.	64° 52' 19'' W.
11	18° 23' 51'' N.	64° 51' 50'' W.
12	18° 23' 42'' N.	64° 51' 23'' W.
13	18° 23' 36'' N.	64° 50' 17'' W.
14	18° 23' 48'' N.	64° 49' 41'' W.
15	18° 24' 11'' N.	64° 49' 0'' W.
16	18° 24' 28'' N.	64° 47' 57'' W.
17	18° 24' 18'' N.	64° 47' 1'' W.
18	18° 23' 13'' N.	64° 46' 37'' W.
19	18° 22' 37'' N.	64° 45' 20'' W.
20	18° 22' 39'' N.	64° 44' 42'' W.
21	18° 22' 42'' N.	64° 44' 36'' W.
22	18° 22' 37'' N.	64° 44' 24'' W.
23	18° 22' 39'' N.	64° 43' 42'' W.
24	18° 22' 30'' N.	64° 43' 36'' W.
25	18° 22' 25'' N.	64° 42' 58'' W.
26	18° 22' 26'' N.	64° 42' 28'' W.
27	18° 22' 15'' N.	64° 42' 3'' W.
28	18° 22' 22'' N.	64° 40' 60'' W.
29	18° 21' 57'' N.	64° 40' 15'' W.
30	18° 21' 51'' N.	64° 38' 23'' W.
31	18° 21' 22'' N.	64° 38' 16'' W.
32	18° 20' 39'' N.	64° 38' 33'' W.
33	18° 19' 15'' N.	64° 38' 14'' W.
34	18° 19' 7'' N.	64° 38' 16'' W.
35	18° 17' 23'' N.	64° 39' 38'' W.
36	18° 16' 43'' N.	64° 39' 41'' W.
37	18° 11' 33'' N.	64° 38' 58'' W.
38	18° 3' 2'' N.	64° 38' 3'' W.
39	18° 2' 56'' N.	64° 29' 35'' W.
40	18° 2' 51'' N.	64° 27' 2'' W.
41	18° 2' 30'' N.	64° 21' 8'' W.
42	18° 2' 31'' N.	64° 20' 8'' W.
43	18° 2' 3'' N.	64° 15' 57'' W.
44	18° 0' 12'' N.	64° 2' 29'' W.
45	17° 59' 58'' N.	64° 1' 4'' W.
46	17° 58' 47'' N.	63° 57' 1'' W.
47	17° 57' 51'' N.	63° 53' 54'' W.
48	17° 56' 38'' N.	63° 53' 21'' W.
49	17° 39' 40'' N.	63° 54' 53'' W.
50	17° 37' 8'' N.	63° 55' 10'' W.
51	17° 30' 21'' N.	63° 55' 56'' W.
52	17° 11' 36'' N.	63° 57' 57'' W.
53	17° 4' 60'' N.	63° 58' 41'' W.
54	16° 59' 49'' N.	63° 59' 18'' W.
55	17° 18' 37'' N.	67° 32' 14'' W.

3. Die Verenigde State-Karibiese See-gebied sluit in:
- (a) die seegebied aan die Atlantiese en Karibiese kuste van die Gemenebes van Puerto Rico en die Verenigde State Maagde-eilande, binne die geodesiese lyne wat die volgende koördinate verbind:

PUNT	BREEDTEGRAAD	LENGTEGRAAD
1	17° 18' 37'' N.	67° 32' 14'' W.
2	19° 11' 14'' N.	67° 26' 45'' W.
3	19° 30' 28'' N.	65° 16' 48'' W.
4	19° 12' 25'' N.	65° 6' 8'' W.
5	18° 45' 13'' N.	65° 0' 22'' W.
6	18° 41' 14'' N.	64° 59' 33'' W.
7	18° 29' 22'' N.	64° 53' 51'' W.
8	18° 27' 35'' N.	64° 53' 22'' W.
9	18° 25' 21'' N.	64° 52' 39'' W.
10	18° 24' 30'' N.	64° 52' 19'' W.
11	18° 23' 51'' N.	64° 51' 50'' W.
12	18° 23' 42'' N.	64° 51' 23'' W.
13	18° 23' 36'' N.	64° 50' 17'' W.
14	18° 23' 48'' N.	64° 49' 41'' W.
15	18° 24' 11'' N.	64° 49' 0'' W.
16	18° 24' 28'' N.	64° 47' 57'' W.
17	18° 24' 18'' N.	64° 47' 1'' W.
18	18° 23' 13'' N.	64° 46' 37'' W.
19	18° 22' 37'' N.	64° 45' 20'' W.
20	18° 22' 39'' N.	64° 44' 42'' W.
21	18° 22' 42'' N.	64° 44' 36'' W.
22	18° 22' 37'' N.	64° 44' 24'' W.
23	18° 22' 39'' N.	64° 43' 42'' W.
24	18° 22' 30'' N.	64° 43' 36'' W.
25	18° 22' 25'' N.	64° 42' 58'' W.
26	18° 22' 26'' N.	64° 42' 28'' W.
27	18° 22' 15'' N.	64° 42' 3'' W.
28	18° 22' 22'' N.	64° 40' 60'' W.
29	18° 21' 57'' N.	64° 40' 15'' W.
30	18° 21' 51'' N.	64° 38' 23'' W.
31	18° 21' 22'' N.	64° 38' 16'' W.
32	18° 20' 39'' N.	64° 38' 33'' W.
33	18° 19' 15'' N.	64° 38' 14'' W.
34	18° 19' 7'' N.	64° 38' 16'' W.
35	18° 17' 23'' N.	64° 39' 38'' W.
36	18° 16' 43'' N.	64° 39' 41'' W.
37	18° 11' 33'' N.	64° 38' 58'' W.
38	18° 3' 2'' N.	64° 38' 3'' W.
39	18° 2' 56'' N.	64° 29' 35'' W.
40	18° 2' 51'' N.	64° 27' 2'' W.
41	18° 2' 30'' N.	64° 21' 8'' W.
42	18° 2' 31'' N.	64° 20' 8'' W.
43	18° 2' 3'' N.	64° 15' 57'' W.
44	18° 0' 12'' N.	64° 2' 29'' W.
45	17° 59' 58'' N.	64° 1' 4'' W.
46	17° 58' 47'' N.	63° 57' 1'' W.
47	17° 57' 51'' N.	63° 53' 54'' W.
48	17° 56' 38'' N.	63° 53' 21'' W.
49	17° 39' 40'' N.	63° 54' 53'' W.
50	17° 37' 8'' N.	63° 55' 10'' W.
51	17° 30' 21'' N.	63° 55' 56'' W.
52	17° 11' 36'' N.	63° 57' 57'' W.
53	17° 4' 60'' N.	63° 58' 41'' W.
54	16° 59' 49'' N.	63° 59' 18'' W.
55	17° 18' 37'' N.	67° 32' 14'' W.

APPENDIX VIII

Form of International Energy Efficiency (IEE) Certificate

INTERNATIONAL ENERGY EFFICIENCY CERTIFICATE

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution by Ships, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as “the Convention”) under the authority of the Government of:

.....
(Full designation of the Party)

by
(Full designation of the competent person or organization
authorized under the provisions of the Convention)

Particulars of ship

Name of ship

Distinctive number or letters

Port of registry

Gross tonnage

IMO Number

THIS IS TO CERTIFY:

- 1 That the ship has been surveyed in accordance with regulation 5.4 of Annex VI of the Convention; and
- 2 That the survey shows that the ship complies with the applicable requirements in regulation 20, regulation 21 and regulation 22.

Completion date of survey on which this Certificate is based: (dd/mm/yyyy)

Issued at
(Place of issue of certificate)

(dd/mm/yyyy):

(Date of issue) (Signature of authorized official
issuing the certificate)

(Seal or stamp of the authority, as appropriate)

Bylaag VIII

Vorm van Internasionale Energiedoeltreffendheidsertifikaat (IED-sertifikaat)

INTERNASIONALE ENERGIEDOELTREFFENDHEIDSERTIFIKAAT

Uitgereik kragtens die bepalings van die Protokol van 1997, soos gewysig, om die Internasionale Konvensie ter Voorkoming van Besoedeling deur Skepe, 1973, te wysig, soos aangepas deur die Protokol van 1978 wat daarmee verband hou (hierna “die Konvensie”, genoem, onder gesag van die Regering van:

.....
(Volle benaming van die Party)

deur
(Volle benaming van die bevoegde persoon of organisasie wat kragtens die bepalings van die Konvensie gemagtig is)

Besonderhede van skip

Naam van skip

Onderskeidende nommer of letters

Hawearregistrasie

Bruto tonnemaat

IMO-nommer

DIT IS OM TE SERTIFISEER:

- 1 Dat ’n opname van die skip gedoen is ooreenkomstig Regulasie 5.4 van Aanhegsel VI van die Konvensie; en
- 2 Dat die opname toon dat die skip voldoen aan die toepaslike vereistes in regulasie 20, regulasie 21 en regulasie 22.

Voltooingsdatum waarop hierdie Sertifikaat gebaseer is: (dd/mm/jjjj)

Uitgereik te
(Plek van uitreiking van sertifikaat)

(dd/mm/jjjj):

(Datum van uitreiking) (Handtekening van gemagtigde
beampte wat die sertifikaat
uitreik)

(Seël of stempel van die owerheid, soos gepas)

Supplement to the International Energy Efficiency Certificate
(IEE Certificate)

RECORD OF CONSTRUCTION RELATING TO ENERGY EFFICIENCY

- Notes:
- 1 This Record shall be permanently attached to the IEE Certificate. The IEE Certificate shall be available on board the ship at all times.
 - 2 The Record shall be at least in English, French or Spanish. If an official language of the issuing Party is also used, this shall prevail in case of a dispute or discrepancy.
 - 3 Entries in boxes shall be made by inserting either: a cross (x) for the answers “yes” and “applicable”; or a dash (-) for the answers “no” and “not applicable”, as appropriate.
 - 4 Unless otherwise stated, regulations mentioned in this Record refer to regulations in Annex VI of the Convention, and resolutions or circulars refer to those adopted by the International Maritime Organization.

1 Particulars of ship

- 1.1 Name of ship
- 1.2 IMO number
- 1.3 Date of building contract
- 1.4 Gross tonnage
- 1.5 Deadweight
- 1.6 Type of ship

2 Propulsion system

- 2.1 Diesel propulsion ☐
- 2.2 Diesel-electric propulsion ☐
- 2.3 Turbine propulsion ☐
- 2.4 Hybrid propulsion ☐
- 2.5 Propulsion system other than any of the above ☐

3 Attained Energy Efficiency Design Index (EEDI)

- 3.1 The Attained EEDI in accordance with regulation 20.1 is calculated based on the information contained in the EEDI technical file which also shows the process of calculating the Attained EEDI☐
 - The Attained EEDI isgrams-CO₂/tonne-mile
- 3.2 The Attained EEDI is not calculated as:
 - (a) the ship is exempt under regulation 20.1 as it is not a new ship as defined in regulation 2.23 ☐
 - (b) the type of propulsion system is exempt in accordance with regulation 19.3 ☐
 - (c) the requirement of regulation 20 is waived by the ship’s Administration in accordance with regulation 19.4 ☐
 - (d) the type of ship is exempt in accordance with regulation 20.1 ☐

4 Required EEDI

- 4.1 Required EEDI is: grams-CO₂/tonne-mile
- 4.2 The required EEDI is not applicable as:
 - (a) the ship is exempt under regulation 21.1 as it is not a new ship as defined in regulation 2.23. ☐
 - (b) the type of propulsion system is exempt in accordance with regulation 19.3 ☐

Aanvulling tot die Internasionale Energiedoeltreffendheidsertifikaat
(IED-sertifikaat)

REKORD VAN KONSTRUKSIE BETREFFENDE
ENERGIEDOELTREFFENDHEID

Notas:	
1	Hierdie Rekord moet permanent by die IED-sertifikaat aangeheg wees. Die IED-sertifikaat moet te alle tye aan boord van die skip beskikbaar wees.
2	Die Rekord moet ten minste in Engels, Frans of Spaans wees. Indien 'n amptelike taal van die uitreikende Party ook gebruik word, moet dit geld in die geval van 'n geskil of teenstrydigheid.
3	Inskrywings in bokse moet gemaak word deur of 'n kruisie (x) vir die antwoorde “ja” en “van toepassing”; of 'n aandagstreep (–) vir die antwoorde “nee” en “nie van toepassing nie”, soos gepas, in te voeg.
4	Tensy anders gestel, verwys regulasies in hierdie Rekord vermeld, na regulasies in Aanhegsel VI van die Konvensie, en resolusies of omsendbriewe verwys na dié wat die die Internasionale Mariteme Organisasie aangeneem is.

1 Besonderhede van skip

- 1.1 Naam van skip
- 1.2 IMO-nommer
- 1.3 Datum van boukontrak
- 1.4 Bruto-tonnemaat
- 1.5 Dooie gewig
- 1.6 Tipe skip

2 Aandrywingstelsel

- 2.1 Diesel-aandrywing ☐
- 2.2 Diesel-elektriese aandrywing ☐
- 2.3 Turbine-aandrywing ☐
- 2.4 Hibriede aandrywing ☐
- 2.5 Aandrywingstelsel anders as enige van die bogenoemde ☐

3 Bereikte energiedoeltreffendheidontwerpindeks (EDOI)

- 3.1 Die Bereikte EDOI in ooreenstemming met regulasie 20.1 word bereken op grond van die inligting vervat in die EDOI tegniese lêer wat ook die proses van die berekening van die Bereikte EDOI toon☐
- Die Bereikte EDOI isgram-CO₂/ton-myl
- 3.2 Die Bereikte EDOI word nie bereken nie as:
- (a) die skip kragtens regulasie 20.1 vrygestel is aangesien dit nie 'n nuwe skip is soos omskryf in regulasie 2.23 nie☐
- (b) die tipe aandrywingstelsel ooreenkomstig regulasie 19.3 vrygestel is☐
- (c) die vereiste van regulasie 20 word deur die skip se administrasie in ooreenstemming met regulasie 19.4 laat vaar is☐
- (d) die tipe skip is vrygestel ooreenkomstig regulasie 20.1☐

4 Vereiste EDOI

- 4.1 Vereiste EDOI is: gram-CO₂/ton-myl
- 4.2 Die vereiste EDOI is nie van toepassing nie as:
- (a) die skip kragtens regulasie 21.1 vrygestel is aangesien dit nie 'n nuwe skip is soos omskryf in regulasie 2.23. ☐
- (b) die tipe aandrywingstelsel ooreenkomstig regulasie vrygestel is 19.3 ... ☐

- (c) the requirement of regulation 21 is waived by the ship’s Administration in accordance with regulation 19.4 ☐
- (d) the type of ship is exempt in accordance with regulation 21.1 ☐
- (e) the ship’s capacity is below the minimum capacity threshold in Table 1 of regulation 21.2. ☐

5 Ship Energy Efficiency Management Plan

- 5.1 The ship is provided with a Ship Energy Efficiency Management Plan (SEEMP) in compliance with regulation 22 ☐

6 EEDI technical file

- 6.1 The IEE Certificate is accompanied by the EEDI technical file in compliance with regulation 20.1 ☐
- 6.2 The EEDI technical file identification/verification number ☐
- 6.3 The EEDI technical file verification date

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

Issued at
(Place of issue of certificate)

(dd/mm/yyyy):

(Date of issue) (Signature of authorized official issuing the certificate)

(Seal or stamp of the authority, as appropriate)

APPENDIX IX

Information to be submitted to the IMO Ship Fuel Oil Consumption Database

- 1. Identity of the ship:
 - IMO number
- 2. Period of calendar year for which the data is submitted:
 - Start date (dd/mm/yyyy)
 - End date (dd/mm/yyyy)
- 3. Technical characteristics of the ship
 - Ship type, as defined in regulation 2 of this Annex or other (to be stated)
 - Gross tonnage (GT)
 - Net tonnage (NT)
 - Deadweight tonnage (DWT)
 - Power output (rated power) of main and auxiliary reciprocating internal combustion engines over 130 kW (to be stated in kW)
 - EEDI (if applicable)
 - Ice class

- (c) die vereiste van regulasie 21 word deur die skip se Administrasie in ooreenstemming met regulasie 19.4 laat vaar ☐
- (d) die tipe skip is vrygestel ooreenkomstig regulasie 21.1 ☐
- (e) die skip se kapasiteit is onder die minimum kapasiteit drempel in Tabel 1 van regulasie 21.2. ☐

5 Bestuursplan vir Skeepsenergiedoeltreffendheid

- 5.1 Die skip word voorsien van ’n Bestuursplan vir Skeepsenergiedoeltreffendheid (BSED) in ooreenstemming met regulasie 22 ☐

6 EDOI tegniese lêer

- 6.1 Die IED-sertifikaat word vergesel van die EDOI tegniese lêer in ooreenstemming met regulasie 20.1 ☐
- 6.2 Die EDOI tegniese lêer identifikasie/verifikasie nommer ☐
- 6.3 Die EDOI tegniese lêer verifiëringsdatum ☐

DIT IS OM TE SERTIFISEER dat hierdie Rekord in alle opsigte korrek is.

Uitgereik by
(Plek van uitreiking van sertifikaat)

(dd/mm/jjjj):
(Datum van uitreiking) (Handtekening van gemagtigde beamppte wat die sertifikaat uitreik)

(Seël of stempel van die owerheid, soos gepas)

Bylaag IX

Inligting wat by die IMO se Skeepsbrandolieverbruiksdatabasis ingedien moet word

- 1. Identiteit van die skip:
 - IMO-nommer
- 2. Tydperk van kalenderjaar waarvoor die data ingedien word:
 - Begindatum (dd/mm/jjjj)
 - Einddatum (dd/mm/jjjj)
- 3. Tegniese kenmerke van die skip
 - Skiptipe, soos omskryf in regulasie 2 van hierdie Aangangsel of ander (moet gestel word)
 - Bruto tonnemaat (BT)
 - Netto tonnemaat (NT)
 - Dooiegeewig tonnemaat (DGT)
 - Kraglewering (aangeskrewe drywing) van hoof- en hulp-suikerverbrandingsenjins van meer as 130 kW (moet in kW aangegee word)
 - EDOI (indien van toepassing)
 - Ysklas

- Fuel oil consumption, by fuel oil type in metric tonnes and methods used for collecting fuel oil consumption data
- Distance travelled
- Hours underway

APPENDIX X

FORM OF STATEMENT OF COMPLIANCE — FUEL OIL CONSUMPTION REPORTING

Statement of compliance — fuel oil consumption reporting

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as “the Convention”) under the authority of the Government of:

.....
(full designation of the Party)

by
(full designation of the competent person or organization authorized under the provisions of the Convention)

Particulars of ship

Name of ship

Distinctive number or letters

IMO Number

Port of registry

Gross tonnage

THIS IS TO DECLARE:

1. That the ship has submitted to this Administration the data required by regulation 22A of Annex VI of the Convention, covering ship operations from (dd/mm/yyyy) through (dd/mm/yyyy); and
2. The data was collected and reported in accordance with the methodology and processes set out in the ship’s SEEMP that was in effect over the period from (dd/mm/yyyy) through (dd/mm/yyyy).

This Statement of Compliance is valid until (dd/mm/yyyy)

Issued at
(Place of issue of certificate)

(dd/mm/yyyy):

(Date of issue) (Signature of authorized official issuing the certificate)

(Seal or stamp of the authority, as appropriate)

- Brandstofverbruik, volgens brandolietipe in metrieke ton en metodes wat gebruik word vir die insameling van brandolieverbruikdata
- Afstand afgelê
- Ure aan die gang

Bylaag X

VORM VAN VOLDOENINGSVERKLARING — RAPPORTERING OOR BRANDOLIEVERBRUIK

Voldoeningsverklaring — rapportering oor brandolieverbruik

Uitgereik kragtens die bepalings van die Protokol van 1997, soos gewysig, tot wysig-
ing van die Internasionale Konvensie ter Voorkoming van Besoedeling deur Skepe,
1973, soos aangepas deur die Protokol van 1978 wat daarmee in verband staan
(hierna “die Konvensie” genoem) onder die gesag van die Regering van:

.....
(volle benaming van die Party)

by
(volle benaming van die bevoegde persoon of organisasie wat kragtens die bepalings
van die Konvensie gemagtig is)

Besonderhede van skip

Naam van skip

Onderskeidende nommer of letters

IMO-nommer

Hawe van registrasie

Brutotonnemaat

DIT IS OM TE VERKLAAR:

1. Dat die skip aan die Administrasie die data voorgelê het wat deur regulasie 22A van
Aanhegsel VI van die Konvensie vereis word, wat skeepsbedrywe dek vanaf
(dd/mm/jjjj) tot en met (dd/mm/jjjj); en
2. Die data is ingesamel en gerapporteer ooreenkomstig die metodologie en prosesse
wat in die skip se BSED uiteengesit is wat van krag was oor die tydperk vanaf
(dd/mm/jjjj) tot en met (dd/mm/jjjj).

Hierdie Voldoeningsverklaring is geldig tot (dd/mm/jjjj)

Uitgereik te
(Plek van uitreiking van sertifikaat)

(dd/mm/jjjj):

(Datum van uitreiking) (Handtekening van gemagtigde
beampte wat die sertifikaat
uitreik)

(Seël of stempel van die owerheid, soos gepas)

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