

**CAYMAN ISLANDS**



**Merchant Shipping (Marine Pollution) Law**

**MERCHANT SHIPPING (MARINE  
POLLUTION) (PREVENTION OF AIR  
POLLUTION FROM SHIPS)  
REGULATIONS, 2012**

**(SL 11 of 2013)**

**Supplement No. 2 published with Gazette No. 4 dated 25th February, 2013.**

## PUBLISHING DETAILS

---



CAYMAN ISLANDS



Merchant Shipping (Marine Pollution) Law

MERCHANT SHIPPING (MARINE POLLUTION)  
(PREVENTION OF AIR POLLUTION FROM  
SHIPS) REGULATIONS, 2012  
(SL 11 of 2013)

Arrangement of Regulations

| Regulation | Page |
|------------|------|
|------------|------|

PART I - GENERAL

|                         |    |
|-------------------------|----|
| 1. Citation .....       | 7  |
| 2. Interpretation ..... | 7  |
| 3. Application.....     | 11 |
| 4. Equivalents.....     | 12 |

PART II - SURVEYS AND CERTIFICATES OF SHIPS

|                                                                                                         |    |
|---------------------------------------------------------------------------------------------------------|----|
| 5. Requirement for IAPP certificate: Initial Survey.....                                                | 12 |
| 6. Renewal of IAPP Certificate: Renewal Survey .....                                                    | 13 |
| 7. Annual Survey .....                                                                                  | 13 |
| 8. Intermediate Survey.....                                                                             | 14 |
| 9. Responsibilities of the owner and master of a ship.....                                              | 14 |
| 10. Additional Surveys.....                                                                             | 15 |
| 11. Nominated Surveyors and Recognised Organisations .....                                              | 16 |
| 12. Issue of IAPP Certificate .....                                                                     | 16 |
| 13. Issue or endorsement of IAPP Certificates at the request of another Convention country .....        | 17 |
| 14. Issue or endorsement of IAPP Certificates to Cayman Islands ship by another Convention country..... | 17 |
| 15. Duration and validity of IAPP Certificate.....                                                      | 18 |
| 16. Extension of validity of IAPP Certificate .....                                                     | 19 |



|     |                                                                                                              |    |
|-----|--------------------------------------------------------------------------------------------------------------|----|
| 17. | Procedure to be adopted when ship is deficient .....                                                         | 20 |
| 18. | Arbitration with respect to refusal to issue IAPP Certificate .....                                          | 21 |
| 19. | Miscellaneous provisions relating to IAPP Certificates .....                                                 | 21 |
| 20. | Prohibition on non-Cayman Islands ships proceeding to sea without an IAPP Certificate or documentation ..... | 22 |

### **PART III – CONTROL, INSPECTION AND DETENTION OF SHIPS**

|     |                                                                                                                  |    |
|-----|------------------------------------------------------------------------------------------------------------------|----|
| 21. | Inspections of ships to ensure compliance .....                                                                  | 23 |
| 22. | Powers of surveyors and other officers .....                                                                     | 24 |
| 23. | Detention of ships .....                                                                                         | 24 |
| 24. | Procedures with respect to detention of ships .....                                                              | 24 |
| 25. | Issue of Improvement and Prohibition Notices .....                                                               | 25 |
| 26. | Investigation of alleged breaches by a Cayman Islands ship reported by another Convention country .....          | 25 |
| 27. | Investigation of alleged breaches following request by another Convention country .....                          | 26 |
| 28. | Right of appeal and compensation for unjustified detention or serving of Improvement or Prohibition Notice ..... | 26 |

### **PART IV - CONTROL OF EMISSIONS FROM SHIPS - DIVISION 1 – OZONE DEPLETING SUBSTANCES**

|     |                                                                             |    |
|-----|-----------------------------------------------------------------------------|----|
| 29. | Permanently sealed equipment .....                                          | 26 |
| 30. | Deliberate emissions of ozone depleting substances prohibited .....         | 26 |
| 31. | Prohibition on installations with ozone depleting substances. ....          | 27 |
| 32. | Records to be kept regarding ozone depleting substances and equipment. .... | 27 |
| 33. | Entries in the Ozone- Depleting Substances Record Book .....                | 27 |

#### **DIVISION 2 – NITROGEN OXIDES (NOX) 28**

|     |                                                                           |    |
|-----|---------------------------------------------------------------------------|----|
| 34. | Application to marine diesel engines .....                                | 28 |
| 35. | Exceptions and exclusions .....                                           | 28 |
| 36. | Major conversion and application of standards thereto .....               | 28 |
| 37. | Emission standards applicable to marine diesel engines .....              | 29 |
| 38. | Non-application of Tier III standards to certain ships .....              | 30 |
| 39. | Engines installed on a ship prior to 01 January 2000 .....                | 31 |
| 40. | Certification of an Approved Method .....                                 | 31 |
| 41. | NOx Technical Code to apply for certification of an Approved Method ..... | 32 |
| 42. | Cost effectiveness of Approved Method .....                               | 32 |
| 43. | Defeat devices and irrational emission control not permitted .....        | 32 |

#### **DIVISION 3 – SULPHUR OXIDES (SOX) 33**

|     |                                                                                                         |    |
|-----|---------------------------------------------------------------------------------------------------------|----|
| 44. | Sulphur content of fuel oil – general .....                                                             | 33 |
| 45. | Sulphur content of fuel oil in Emission Control Areas .....                                             | 33 |
| 46. | Fuel oil documentation by supplier .....                                                                | 33 |
| 47. | Blending of fuel oils to achieve sulphur content limits for operating in an Emission Control Area ..... | 33 |
| 48. | Application of sulphur limits for new or changed Emission Control Areas .....                           | 34 |

#### **DIVISION 4 –VAPOUR EMISSION CONTROL 34**

|     |                                                                |    |
|-----|----------------------------------------------------------------|----|
| 49. | Fitting of vapour emission control systems on board ship ..... | 34 |
| 50. | Volatile Organic Compound Control Management Plan .....        | 34 |



## **PART V– SHIPBOARD INCINERATION**

|     |                                                                                               |    |
|-----|-----------------------------------------------------------------------------------------------|----|
| 51. | Shipboard incineration and installation and use of incinerators .....                         | 35 |
| 52. | Prohibition on the incineration of certain substances.....                                    | 36 |
| 53. | Prohibition on the use of shipboard incinerators whilst in Cayman ports or harbours etc. .... | 36 |
| 54. | Combustion chamber temperatures .....                                                         | 37 |
| 55. | Preservation of the London Convention .....                                                   | 37 |

## **PART VI– FUEL OIL AVAILABILITY AND QUALITY**

|     |                                                                     |    |
|-----|---------------------------------------------------------------------|----|
| 56. | Non-application to certain fuels.....                               | 37 |
| 57. | Fuel Oil Quality .....                                              | 37 |
| 58. | Fuel oil derived by methods other than petroleum refining .....     | 38 |
| 59. | Master to ensure compliant fuel is used on board ship.....          | 38 |
| 60. | Action in the event of non-compliance regarding fuel oil.....       | 38 |
| 61. | Bunker Delivery Note and fuel oil sample.....                       | 39 |
| 62. | Registration of fuel oil suppliers in the Cayman Islands.....       | 40 |
| 63. | Inspection of Bunker Delivery Note and analysis of fuel sample..... | 41 |
| 64. | Action where non-compliant fuel is found on board ship.....         | 41 |
| 65. | Arrangements for ships on scheduled services .....                  | 41 |
| 66. | Promotion of the availability of compliant fuel oil .....           | 41 |

## **PART VII – OFFENCES AND ENFORCEMENT**

|     |                                                           |    |
|-----|-----------------------------------------------------------|----|
| 67. | Offences-general .....                                    | 42 |
| 68. | False declaration on Bunker Delivery Note .....           | 44 |
| 69. | Other persons party to the commission of an offence ..... | 44 |
| 70. | Act or default of other persons .....                     | 44 |
| 71. | Defence .....                                             | 44 |
| 72. | Offences by officers of bodies corporate .....            | 45 |

|                   |           |
|-------------------|-----------|
| <b>SCHEDULE 1</b> | <b>47</b> |
|-------------------|-----------|

|                                                                      |           |
|----------------------------------------------------------------------|-----------|
| <b>TYPE APPROVAL AND OPERATING LIMITS FOR SHIPBOARD INCINERATORS</b> | <b>47</b> |
|----------------------------------------------------------------------|-----------|

|                   |           |
|-------------------|-----------|
| <b>SCHEDULE 2</b> | <b>49</b> |
|-------------------|-----------|

|                                                             |           |
|-------------------------------------------------------------|-----------|
| <b>INFORMATION TO BE INCLUDED IN A BUNKER DELIVERY NOTE</b> | <b>49</b> |
|-------------------------------------------------------------|-----------|

|                   |           |
|-------------------|-----------|
| <b>SCHEDULE 3</b> | <b>50</b> |
|-------------------|-----------|

|                               |           |
|-------------------------------|-----------|
| <b>EMISSION CONTROL AREAS</b> | <b>50</b> |
|-------------------------------|-----------|



## CAYMAN ISLANDS



### Merchant Shipping (Marine Pollution) Law

# MERCHANT SHIPPING (MARINE POLLUTION) (PREVENTION OF AIR POLLUTION FROM SHIPS) REGULATIONS, 2012

(SL 11 of 2013)

The Governor, in exercise of the powers conferred on him by section 6 of the Merchant Shipping (Marine Pollution) Law, 2001, and by section 463 of the Merchant Shipping Law (2011 Revision), hereby makes the following regulations:

## PART I - GENERAL

### Citation

1. These Regulations may be cited as the Merchant Shipping (Marine Pollution) (Prevention of Air Pollution from Ships) Regulations, 2012.

### Interpretation

2. (1) In these Regulations —

“**Annex VI**” means the Regulations for the Prevention of Air Pollution from Ships appended to the Protocol of 1997 to the Marine Pollution Convention and adopted by the International Conference of Parties to the MARPOL Convention in September 1997, together with the amendments adopted on 10 October 2008 under Resolution MEPC.176(58) and those adopted 26 March 2010 under Resolution MEPC.190(6) and any such future amendments thereof

or replacements therefor with respect to the Protocol of 1997 and Annex VI as may be in effect in respect of the Islands;

**“anniversary date”** in relation to an IAPP Certificate means the day and month of each year, within the period of validity of the Certificate, which corresponds to the date of expiry of the Certificate and for a Certificate issued with a period of validity of n years, where n is greater than 1 but not greater than 5, the last anniversary means the anniversary date occurring in the year preceding the date of expiry of the Certificate, the last but one anniversary (where applicable) means the anniversary date occurring in the second year preceding the expiry date, with earlier anniversary dates as applicable being construed accordingly;

**“annual survey period”** means the period of six months commencing three months prior to each anniversary date;

**“Cayman Islands ship”** has the same meaning as in section 2 (1) of the *Merchant Shipping Law (2011 Revision)*;

**“Chief Executive Officer”** means Chief Executive Officer of MACI;

**“continuous feeding”** in relation to a shipboard incinerator, means 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 temperatures within the range of 850° and 1200°C;

**“Convention country”** means —

- (a) a country, the government of which is party to MARPOL 73/78 and the 1997 Protocol thereto; and
- (b) a territory of such a country to which MARPOL 73/78 and the 1997 Protocol thereto extends;

**“direct replacement”**, in relation to the equipment and fittings required under these Regulations, means the direct replacement of equipment and fittings with equipment and fittings that conform with the provisions of Annex VI;

**“emission”** means any release of a substance subject to control by these Regulations from a ship into the atmosphere or sea;

**“emission control area”** means the areas as delineated in Schedule 3 together with any other sea area, including a port area, so designated as an emission control area in any amendment to the Protocol of 1997 as may be in effect from time to time in respect of the Islands;

**“fuel oil”** means any fuel delivered to and intended for combustion purposes for propulsion or operation on board a ship and includes distillate and residual fuel;

**“fuel oil supplier”** means any person who supplies fuel oil from within the Cayman Islands to any ship to which these regulations apply;



“**IAPP Certificate**” means a certificate entitled “International Air Pollution Prevention Certificate” issued in accordance with Annex VI;

“**IGC Code**” means the 1993 edition of the IMO International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk and any subsequent amendments thereof or replacements therefor as may be in effect in respect of the Islands;

“**intermediate survey period**” means the period of six months commencing three months prior to the second or the third anniversary date;

“**Law**” means the *Merchant Shipping (Marine Pollution) Law, 2001*;

“**length (L)**” has the same meaning as in regulation 2 of the Merchant Shipping — (Load Line) Regulations, 2002, as may be amended from time to time;

“**MACI**” means the Maritime Authority of the Cayman Islands and is the Maritime Authority established under section 3 of the *Maritime Authority Law (2008 Revision)*;

“**marine diesel engine**” means any reciprocating internal combustion engine operating on liquid or dual fuel to which regulation 34 applies, including booster/compound systems if applied;

“**Marine Pollution Convention**” or “**MARPOL 73/78**” means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978, together with such amendments thereof or replacements therefor as may be in effect in respect of the Islands;

“**maximum continuous rating of the engine**” means the rated power in kW as given in the Engine International Air Pollution Prevention Certificate issued in accordance with the NO<sub>x</sub> Technical Code;

“**new installation**” means the installation of systems, equipment, including new portable fire extinguishing units, insulation, or other material on a ship, but excludes repair or recharge of previously installed systems, equipment, insulation, or other material, and excludes recharge of portable fire extinguishing units;

“**NO<sub>x</sub> Technical Code**” means the *Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines* adopted on 27 September 1997 by Resolution 2 of the Conference of Parties to MARPOL 73/78 together with amendments adopted on 10 October 2008 under Resolution MEPC.177(58) and any such future amendments thereof or replacements therefor as may be in effect in respect of the Islands;

“**noxious liquid substance**” has the meaning given in regulation 1.10 of Annex II to MARPOL 73/78;

“**offshore terminal**” means an installation situated away from the shore where bulk fluid or gas cargo is —

- (a) transferred between ships;
- (b) loaded on to a ship having been transported from the shore line; or
- (c) unloaded from a ship for transporting to the shoreline;

“**owner**”, in relation to a ship, has the same meaning as in section 2(1) of the of the *Merchant Shipping Law (2011 Revision)*;

“**ozone-depleting substance**” means a controlled substance defined in paragraph 4 of article 1 of the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, listed in Annex A, B, C or E to that Protocol together with any such future amendments thereof or replacements therefor with respect to that Protocol as may be in effect in respect of the Islands;

“**period of validity**” in relation to an IAPP Certificate means the period from the initial date of issue of the Certificate following the satisfactory conclusion of an initial survey in accordance with regulation 5 or renewal survey in accordance with regulation 6 until the date of expiry of that Certificate and any re-issue of the same Certificate, other than following a satisfactory initial or renewal survey, shall not affect the Certificate’s period of validity or expiry date or the cycle of surveys applicable during the period of validity;

“**platform**” includes fixed and floating platforms and drilling rigs;

“**Protocol of 1997**” means the Protocol, dated 26th September 1997, to amend MARPOL 73/78;

“**ship**” means a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air-cushion vehicles, submersibles, floating craft and platforms;

“**shipboard incineration**” means the incineration on board a ship of wastes or other matter generated during the normal operation of the ship;

“**shipboard incinerator**” means a shipboard facility designed for the primary purpose of incineration;

“**sludge oil**” means sludge from fuel 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;

“**surveyor**” means a person who is appointed as a surveyor of ships under section 419 (1) and (2) of the *Merchant Shipping Law (2011 Revision)*;

- (2) Any reference in Part II to a survey, so far as it concerns a survey of engines and equipment for compliance with regulation 37, means a survey in accordance with the NOx Technical Code.
- (3) Any reference in these Regulations to the date of construction of a ship is a reference to the date on which the keel of the ship is laid or on which the ship is at a stage of construction at which —
  - (a) construction identifiable with a specific ship has begun; and



- (b) assembly of that ship has incorporated at least 50 tonnes of structural material or one per cent of the estimated mass of all structural material, whichever is less.
- (4) In the application of these Regulations to —
  - (a) an air-cushion vehicle, a reference to the master of a ship includes a reference to the captain of that air-cushion vehicle; and
  - (b) a platform, a reference to the master of a ship includes a reference to the manager of that platform.

### **Application**

3. (1) Unless expressly provided otherwise, these Regulations apply to —
- (a) all Cayman Islands ships;
  - (b) other ships while they are within the territorial sea of the Cayman Islands;
  - (c) any marine diesel engine of 130kW power or above installed on any ship to which these Regulations apply.
- (2) These Regulations do not apply to —
- (a) any warship, naval auxiliary or other ship owned or operated by a State and used, for the time being, only on government, non-commercial service;
  - (b) any emission necessary for the purpose of securing the safety of a ship or saving life at sea;
  - (c) 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 minimising the emission; and
    - (ii) except if the operator or the master acted either with intent to cause damage, or recklessly and with knowledge that damage would probably result;
  - (d) any emission from any ship arising directly from the exploration, exploitation and associated offshore processing of sea-bed mineral resources, including but not limited to —
    - (i) the flaring of hydrocarbons;
    - (ii) the burning of cuttings, muds and stimulation fluids during well completion and testing operations;
    - (iii) flaring arising from upset conditions;
    - (iv) the release of gases and volatile compounds entrained in drilling fluids and cuttings;

- (v) emissions associated solely and directly with the treatment, handling and storage of sea-bed minerals; and
- (vi) emissions from marine diesel engines that are solely dedicated to the exploration, exploitation and associated off-shore processing of sea-bed mineral resources;
- (e) the use of hydrocarbons that are produced and subsequently used on-site as fuel by a Cayman Islands ship or platform where such use has been authorised by the Chief Executive Officer.

### **Equivalents**

- 4. (1) The Chief Executive Officer may permit any fitting, material, appliance or apparatus to be fitted in a ship as an alternative to that required by these Regulations if that fitting, material, appliance or apparatus is at least as effective in terms of emissions reductions as that required by these Regulations.
- (2) The Chief Executive Officer shall inform the IMO of any equivalent permitted in accordance with paragraph (1).

## **PART II - SURVEYS AND CERTIFICATES OF SHIPS**

### **Requirement for IAPP certificate: Initial Survey**

- 5. (1) A Cayman Islands ship, other than a platform, of 400 gross tonnage and above and any Cayman Islands platform must not —
  - (a) be put into service; or
  - (b) if it is already in service, continue in service,unless the requirements set out in paragraph (2) are met.
- (2) The requirements referred to in paragraph (1) are that —
  - (a) a survey has been carried out in respect of the ship;
  - (b) at the date of the survey the surveyor is satisfied that the equipment, systems, fittings, arrangements and materials fully comply with the requirements of this Part, or an alternative that has been permitted pursuant to regulation 4; and
  - (c) an IAPP Certificate has been issued in respect of that ship and is still valid.
- (3) A survey carried out under paragraph (2) is referred to in these Regulations as an “initial survey”.

### **Renewal of IAPP Certificate: Renewal Survey**

6. (1) A Cayman Islands ship, other than a platform, of 400 gross tonnage and above and any Cayman Islands platform must not —
- (a) proceed to sea; or
  - (b) if it is already at sea, remain at sea,
- after the date of expiry of an IAPP certificate in respect of that ship unless the requirements set out in paragraph (2) are met.
- (2) The requirements referred to in paragraph (1) are that —
- (a) a survey has been carried out in respect of the ship;
  - (b) at the date of the survey the surveyor is satisfied that the equipment, systems, fittings, arrangements and materials fully comply with the requirements of Part III, or an alternative that has been permitted pursuant to regulation 4; and
  - (c) an IAPP Certificate has been issued in respect of that ship and is still valid.
- (3) A survey carried out under paragraph (2) is referred to in these Regulations as a “renewal survey”.

### **Annual Survey**

7. (1) Subject to paragraph (3), a Cayman Islands ship, other than a platform, of 400 gross tonnage and above and any Cayman Islands platform must not —
- (a) proceed to sea; or
  - (b) if it is already at sea, remain at sea,
- after the end of any annual survey period for that ship unless the requirements set out in paragraph (2) are met.
- (2) The requirements referred to in paragraph (1) are that —
- (a) a survey has been carried out in respect of the ship; and
  - (b) the surveyor —
    - (i) is satisfied, at the date of survey, that the equipment, systems, fittings, arrangements and materials of that ship have been maintained in accordance with this Part and remain satisfactory for the service for which the ship is intended; and
    - (ii) has endorsed the IAPP Certificate to that effect.
- (3) Paragraph (1) does not apply if the requirements of regulation 6(2) or 8(2) have been met during the annual survey period in question.
- (4) An endorsement referred to in paragraph (2)(b)(ii) must be in the form set out in Appendix 1 to Annex VI.

- (5) A survey carried out under paragraph (2) is referred to in these Regulations as an “annual survey”.

### **Intermediate Survey**

8. (1) Subject to paragraph (2), a Cayman Islands ship, other than a platform, of 400 gross tonnage and above and any Cayman Islands platform must not —
- (a) proceed to sea; or
  - (b) if it is already at sea, remain at sea,
- after the third anniversary date, unless the requirements set out in paragraph (2) are met.
- (2) The requirements referred to in paragraph (1) are that —
- (a) a survey has been carried out in respect of the ship during an intermediate survey period; and
  - (b) the surveyor —
    - (i) at the date of that survey is satisfied that the equipment and arrangements of that ship fully comply with the requirements of this Part, or an alternative that has been permitted pursuant to regulation 4, and are at the time of the survey in good working order; and
    - (ii) has endorsed the IAPP Certificate to that effect;
- (3) An endorsement referred to in sub-paragraph (2)(b)(ii) must be in the form set out in Appendix 1 to Annex VI.
- (4) A survey carried out under paragraph (2) is referred to in these Regulations as an “intermediate survey”.

### **Responsibilities of the owner and master of a ship**

9. (1) The owner and the master of a Cayman Islands ship, other than a platform, of 400 gross tonnage and above and any Cayman Islands platform must ensure that the condition of the ship and its equipment are maintained to conform with the provisions of Part III so as to ensure that the ship in all respects remains fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment.
- (2) The owner and the master of a Cayman Islands ship, other than a platform, of 400 gross tonnage and above and any Cayman Islands platform must ensure that after any survey of the ship required by this Part has been completed, no change, except by way of direct replacement, is made to the equipment, systems, fittings, arrangements and materials of that ship covered by the survey without the approval of the Chief Executive Officer.



- (3) Whenever —
  - (a) an accident occurs to a ship; or
  - (b) a defect is discovered in a ship,which substantially affects the efficiency or completeness of the equipment of the ship required under this Part, the owner and the master of the ship must ensure that the requirements of paragraph (4) are complied with.
- (4) The requirements referred to in paragraph (3) are that —
  - (a) the accident or defect, as the case may be, is reported at the earliest opportunity to the Chief Executive Officer that issued the appropriate certificate in respect of the ship; and
  - (b) in the case of a ship in a port outside the Cayman Islands, the accident or the defect, as the case may be, is also immediately reported to the appropriate maritime authorities in the country in which the port is situated.
- (5) Whenever an accident or defect is reported to the Chief Executive Officer in accordance with paragraph (4)(a), he —
  - (a) may cause an investigation to be initiated to determine whether or not an additional survey is necessary; and
  - (b) if it considered that an additional survey is necessary, shall cause that survey to be carried out.
- (6) Whenever an accident or defect is reported to the Chief Executive Officer in accordance with paragraph (4)(a) and the ship in question is in a port outside the Cayman Islands, the Chief Executive Officer shall take all appropriate steps to ascertain that the requirement in paragraph (4)(b) has been complied with.

### **Additional Surveys**

- 10.** (1) This regulation applies to a Cayman Islands ship, other than a platform, of 400 gross tonnage and above and any Cayman Islands platform where —
- (a) a survey is considered necessary in accordance with regulation 9(5); or
  - (b) an important repair or renewal, other than by way of direct replacement, has been made to the ship.
- (2) A ship to which this regulation applies must not —
- (a) proceed to sea; or
  - (b) if it is already at sea, remain at sea,
- unless the requirements set out in paragraph (3) are met.
- (3) The requirements referred to in paragraph (2) are that —

- (a) a survey has been carried out in respect of the ship;
  - (b) at the date of the survey the surveyor is satisfied that —
    - (i) the repair or renewal has been made effectively;
    - (ii) the materials used in, and the workmanship of, the repair or renewal are satisfactory in all respects; and
    - (iii) the ship complies in all respects with the requirements of Part III; and
  - (c) the surveyor has issued a survey report expressing the satisfaction required by subparagraph (b).
- (4) A survey carried out under paragraph (3) is referred to in these Regulations as an “additional survey”.

### **Nominated Surveyors and Recognised Organisations**

- 11.** (1) Subject to paragraph (2), surveys under these Regulations shall be carried out by a surveyor of ships.
- (2) The Chief Executive Officer may entrust the surveys under these Regulations to surveyors nominated for the purpose or to organisations recognised by him.
- (3) Where surveyors or organisations are entrusted by the Chief Executive Officer under paragraph (2), the Chief Executive Officer shall ensure the completeness and efficiency of the surveys and shall undertake to ensure the necessary arrangements satisfy this obligation.
- (4) Surveyors or organisations to whom surveys are entrusted under paragraph (2) shall as a minimum be empowered by the Chief Executive Officer to require that corrective action is taken immediately to bring a ship into compliance with this Part.
- (5) The Chief Executive Officer shall notify the IMO of the specific responsibilities and conditions of the authority delegated to such nominated surveyors or recognised organisations for circulation to MARPOL member States.

### **Issue of IAPP Certificate**

- 12.** (1) On being notified by a surveyor that the surveyor —
- (a) has carried out an initial survey or a renewal survey in respect of a ship to which this regulation applies; and
  - (b) is satisfied at the date of the survey that the equipment, systems, fittings, arrangements and materials fully comply with the requirements of this Part or an alternative that has been permitted pursuant to regulation 4,
- the IAPP Certificate shall be issued or endorsed by either the Chief Executive Officer or by any person or organisation duly authorised by him and in every



such case the Chief Executive Officer shall assume full responsibility for the Certificate.

- (2) Where a ship is transferred to the Cayman Islands flag, a new IAPP Certificate shall only be issued when the Chief Executive Officer is fully satisfied that —
  - (a) the ship is in full compliance with these Regulations; and
  - (b) no changes, except by way of direct replacement, have been made to the equipment, systems, fittings, arrangements and materials of that ship since the initial issue of the IAPP Certificate issued by the Convention country from which the ship is being transferred and which is in force at the time of transfer.
- (3) An IAPP Certificate issued under these Regulations must be in English and in the form set out in Appendix 1 to Annex VI.

### **Issue or endorsement of IAPP Certificates at the request of another Convention country**

- 13.** (1) The Chief Executive Officer may, at the request of a Convention country other than the Cayman Islands, cause a ship which is registered in or otherwise entitled to fly the flag of that Convention country, to be surveyed and, if satisfied following such a survey that these Regulations have been complied with, shall issue or authorise the issuance to that ship of an IAPP Certificate, and where appropriate endorse or authorise the endorsement of the IAPP Certificate on the ship, in accordance with these Regulations.
- (2) An IAPP Certificate so issued shall contain a statement to the effect that it has been issued at the request of the Convention country and a copy of it together with a copy of the survey report shall be transmitted as early as possible to the Convention country requesting the survey.
- (3) No IAPP Certificate shall be issued to a ship which is not entitled to fly the flag of a Convention country.

### **Issue or endorsement of IAPP Certificates to Cayman Islands ship by another Convention country**

- 14.** (1) The Chief Executive Officer may request a Convention country, other than the Cayman Islands, to survey a Cayman Islands ship to which these Regulations apply and, if the surveyor undertaking the survey is satisfied, following such a survey, that these Regulations have been complied with the Chief Executive Officer may request the Convention country to issue to that Cayman Islands ship an IAPP Certificate, and where appropriate endorse or authorise the endorsement of the IAPP Certificate on the ship, in accordance with these Regulations and Annex VI.

- (2) An IAPP Certificate issued by another Convention country in accordance with paragraph (1) shall have the same force and receive the same recognition in the Islands as an IAPP Certificate issued under these Regulations.

### **Duration and validity of IAPP Certificate**

- 15.** (1) Subject to the following paragraphs and to regulations 16(3) and 18(1), an IAPP Certificate issued in respect of a ship to which this Regulation applies is valid for such period as is specified in the Certificate, not exceeding five years beginning with the date of completion of the relevant initial or renewal survey.
- (2) Subject to paragraph (3), where a renewal survey is completed —
- (a) within the final three month period; or
  - (b) after the date of expiry of the latest IAPP Certificate,
- the new IAPP Certificate is valid for such period as is specified in the Certificate, beginning with the date of the completion of the renewal survey and ending with a date not exceeding five years from the date of expiry of the latest IAPP Certificate.
- (3) An IAPP Certificate issued in respect of a ship ceases to be valid upon any one or more of the following occurrences taking place —
- (a) the ship transferring to the flag of another State;
  - (b) the ship proceeding to sea where —
    - (i) a repair or renewal referred to in regulation 10(1) has been made; and
    - (ii) the requirements set out in regulation 10(3) have not been complied with;
  - (c) if a survey under regulations 5, 6, 7 or 8 is not completed in accordance with the requirements of these Regulations;
  - (d) if an IAPP certificate is not endorsed in accordance with the requirements of these Regulations;
  - (e) upon a new IAPP Certificate being issued in respect of the ship; or
  - (f) upon the date of expiry of the Certificate.
- (4) Upon transfer of a Cayman Islands ship, to which these Regulations apply, to the flag of another Convention country, where such country so requests within ninety days after the transfer has taken place, the Chief Executive Officer shall transmit as soon as possible to the government of the State concerned, a copy of the IAPP Certificate carried by the ship before the transfer and, if available, a copy of the ship's most recent survey report.
- (5) In this regulation, the “final three month period” means the period of three months ending on the date of expiry of the IAPP Certificate in question.



### **Extension of validity of IAPP Certificate**

- 16.** (1) Subject to paragraphs (2) to (7), no extension of the five-year period of validity of the IAPP Certificate shall be permitted.
- (2) Where, at the time when an IAPP Certificate expires, the ship is not in a port of a State in which it can be surveyed, an extension to the period of validity of the Certificate may be granted —
- (a) for a period of not more than three months; and
- (b) only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed, and only then when it appears proper and reasonable to do so.
- (3) After arrival in the port in which it is to be surveyed, a ship shall not be entitled by virtue of an extension granted under paragraph (2) to leave the port without having obtained a new IAPP Certificate.
- (4) Where a renewal survey has been completed and a new IAPP Certificate cannot be issued or placed on board the ship before the expiry date of the existing Certificate, the period of validity of the existing Certificate may be extended for a further period not exceeding five months from the expiry date of the Certificate.
- (5) An IAPP Certificate issued to a ship engaged on short voyages which has not been extended under the foregoing paragraphs may be extended for a period of grace of up to one month from the date of expiry stated on it and 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) Where an annual or intermediate survey is completed before the periods specified in regulation 2 then —
- (a) the anniversary date shown on the IAPP 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 7 or 8 respectively 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 7 or 8 are not exceeded.
- (7) Any extension of an IAPP Certificate shall be effected by the insertion, by a duly authorised person, of the appropriate endorsement on the Certificate.

**Procedure to be adopted when ship is deficient**

- 17.** (1) Where a surveyor determines that —
- (a) the condition of a Cayman Islands ship, other than a platform, of 400 gross tonnage and above and any Cayman Islands platform, or its equipment, does not correspond substantially with the particulars of the IAPP Certificate (if any) issued in respect of the ship or platform; or
  - (b) a Cayman Islands ship, other than a platform, of 400 gross tonnage and above and any Cayman Islands platform, is not fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment,
- the surveyor shall proceed in accordance with paragraph (2).
- (2) Where paragraph (1) is applicable, the surveyor shall advise the owner or master of the corrective action which in the opinion of the surveyor is required and where an IAPP Certificate has been issued in respect of the ship or platform and is still valid, the surveyor shall also notify the Chief Executive Officer —
- (a) that the surveyor has advised the owner and master of the corrective action required; and
  - (b) where applicable, that the corrective action has not been taken.
- (3) Where an IAPP Certificate has been issued in respect of the ship and is still valid, the Chief Executive Officer may suspend the validity of that Certificate until the corrective action has been taken.
- (4) Where the Chief Executive Officer suspends the validity of an IAPP Certificate issued in respect of a ship, he must immediately give notice of such suspension —
- (a) to the owner of the ship; and
  - (b) where the ship is in a port outside the Cayman Islands, to the appropriate maritime authorities of the country in which the port is situated.
- (5) Where the owner of the ship is given notice of the suspension of an IAPP Certificate, that owner must notify the master of the ship in question of the suspension.
- (6) Paragraphs (1) and (2) have effect in relation to non-Cayman Islands ships in Cayman Islands waters as if —
- (a) the reference to “the Chief Executive Officer” includes a reference to the Government of the State where the ship is registered or is otherwise entitled to fly the flag of that State if the ship is not registered; and
  - (b) the reference to “a surveyor” includes a reference to a person authorised by that State to survey the ship.



### **Arbitration with respect to refusal to issue IAPP Certificate**

- 18.** (1) Should an owner, or any other person making an application for a survey required by these Regulations be dissatisfied with the outcome of the survey because the issue of an IAPP Certificate has been refused or for any other reason, he may serve notice, within twenty-one days of the completion of the survey, on the person responsible for issuing the certificate under regulation 12, that the dispute be referred to a single arbitrator, appointed by agreement between the parties, to be settled by him.
- (2) A person shall not be qualified for appointment as an arbitrator under this section unless he is —
- (a) a person holding a certificate of competency as a master mariner (unrestricted) or as a marine engineer officer Class 1, or a person holding a certificate equivalent to any such certificate;
  - (b) a naval architect;
  - (c) a person with at least ten years standing as an attorney-at-law in the Islands and with at least ten years' experience in shipping law;
  - (d) a person referred to in section 3(1)(a) of the *Legal Practitioners Law (2010 Revision)* who has practised in the designated profession for a period of at least ten years and with at least ten years' experience in shipping law; or
  - (e) a person with special experience in the shipping industry.
- (3) In connection with his functions under this regulation, an arbitrator shall have the powers of inspection conferred by section 422 of the *Merchant Shipping Law (2011 Revision)*.

### **Miscellaneous provisions relating to IAPP Certificates**

- 19.** (1) The Chief Executive Officer may cancel an IAPP Certificate issued in respect of a ship to which these Regulations apply, where he has reason to believe that —
- (a) the IAPP Certificate was issued on false or erroneous information; or
  - (b) since the completion of any survey required by these Regulations, the equipment or machinery of the ship has sustained damage or is otherwise deficient.
- (2) The Chief Executive Officer may require that an IAPP Certificate issued in respect of a ship to which these Regulations apply, and which has expired or which has been cancelled, or which has been suspended in accordance with regulation 17(3), is to be surrendered within such time and in such manner as he may in writing direct and the master or owner shall duly surrender the Certificate.
- (3) In relation to a ship to which these Regulations apply, no person —

- (a) other than the Chief Executive Officer, or a person authorised by him to issue, endorse or alter an IAPP Certificate, shall intentionally alter an IAPP Certificate;
  - (b) shall intentionally make or issue a false IAPP Certificate;
  - (c) shall knowingly or recklessly provide false information in connection with a survey required under these Regulations;
  - (d) shall with intent to deceive, use or lend an IAPP Certificate or permit an appropriate certificate to be used by another person; or
  - (e) shall fail to surrender an IAPP Certificate where required to do so pursuant to paragraph (2).
- (4) The owner and the master of a ship, in respect of which an IAPP Certificate has been issued must ensure that the Certificate is readily available on board the ship for inspection at all times.

### **Prohibition on non-Cayman Islands ships proceeding to sea without an IAPP Certificate or documentation**

- 20.** (1) A non-Cayman Islands ship, other than a platform, of 400 gross tonnage and above and any non-Cayman Islands platform registered in, or entitled to fly the flag of, a Convention country, must not proceed to sea from a port in the Cayman Islands unless —
- (a) an IAPP Certificate has been issued pursuant to Annex VI in respect of that ship and is still valid;
  - (b) a surveyor is satisfied that the ship can proceed to sea without presenting an unreasonable threat of harm to the marine environment; or
  - (c) where the ship or platform has been detained or is subject to detention, a person having power to detain the ship has permitted the ship to proceed to sea for the purpose of proceeding to the nearest appropriate repair yard available.
- (2) A non-Cayman Islands ship, other than a platform, of 400 gross tonnage and above and any non-Cayman Islands platform which is registered in or entitled to fly the flag of a country which is not a Convention country shall not proceed to sea from a port in the Cayman Islands unless documentation has been issued in respect of that ship which is still valid and shows that a survey has been carried out in respect of the ship as if regulation 5 applied to the ship; and either —
- (a) a surveyor is satisfied that the ship can proceed to sea without presenting an unreasonable threat of harm to the marine environment; or
  - (b) where the ship or platform has been detained or is subject to detention, a person having power to detain the ship has permitted the ship to proceed



to sea for the purpose of proceeding to the nearest appropriate repair yard available.

## **PART III – CONTROL, INSPECTION AND DETENTION OF SHIPS**

### **Inspections of ships to ensure compliance**

- 21.** (1) Subject to paragraph (2) a surveyor or other officer referred to in section 420(1) of the *Merchant Shipping Law (2011 Revision)*, or a proper officer, may, at all reasonable times, go on board any Cayman Islands ship wherever it may be and any other ship which is in Cayman waters in order to —
- (a) inspect or survey all or any part of the ship and its equipment;
  - (b) inspect any documentation held or required to be held on board the ship;
  - (c) assess the operational preparedness of the master and crew, as appropriate,
- in order to ascertain the level of compliance of the ship with these Regulations.
- (2) An inspection carried out for Port State Control purposes shall —
- (a) be undertaken in accordance with the applicable provisions of the Merchant Shipping (Port State Control) Regulations, 2003, as may be amended from time to time; and
  - (b) in addition to the inspection procedures set out in regulation 6 of the Merchant Shipping (Port State Control) Regulations, 2003 and without affecting the generality of the application of those Regulations, an initial Port State Control inspection shall include —
    - (i) verifying whether the ship has emitted any substances in contravention of these Regulations; and
    - (ii) inspecting bunker delivery notes retained on board in accordance with regulation 61 (3).
- (3) An inspection or survey undertaken on board a Cayman Islands ship shall, as necessary, include —
- (a) an inspection or survey of any part of the ship or its equipment;
  - (b) any documentation which the ship is required to have on board; and
  - (c) an assessment of the familiarity of the master and crew with the essential shipboard procedures and use of equipment for the prevention of air pollution in accordance with these Regulations.

**Powers of surveyors and other officers**

- 22.** The powers conferred by sections 420, 421 and 422 of the *Merchant Shipping Law (2011 Revision)* shall be available to a surveyor or other officer referred to in regulation 21(1) with respect to the carrying out of any inspection or survey under these Regulations.

**Detention of ships**

- 23.** (1) Subject to paragraph (2), where, in relation to any Cayman Islands ship wherever it may be and any other ship in Cayman Islands waters, other than a platform in transit, to which these Regulations apply —
- (a) an IAPP Certificate is required have been issued in respect of the ship but has not been issued, or has been issued but is not valid or is not on board;
  - (b) the condition of the ship or its equipment does not correspond substantially with the particulars of the IAPP Certificate or other appropriate documentation which the ship should have on board;
  - (c) the condition of the ship or its equipment is such that the vessel cannot proceed to sea without presenting an unreasonable threat of harm to the marine environment;
  - (d) the master or crew are not familiar with essential shipboard procedures or the operation of equipment required under these Regulations relating to the prevention of air-pollution; or
  - (e) an offence under regulation 67 has been committed,
- the ship is liable to be detained until a surveyor is satisfied that it can proceed to sea without presenting an unreasonable threat of harm to the marine environment.
- (2) Where a ship is liable to be detained or has been detained under paragraph (1) a surveyor or other person having powers to detain the ship may permit the ship to proceed to the nearest port where appropriate repair facilities are available.
- (3) Section 444 of the *Merchant Shipping Law (2011 Revision)* applies where a ship is liable to be or is detained under this regulation as if references to the detention of a ship under that Law were references to these Regulations.

**Procedures with respect to detention of ships**

- 24.** (1) Where a ship is liable to be detained under these Regulations a person authorised to detain the ship shall serve on the master of the ship or other person for the time being in charge of the ship a detention notice which states the grounds for detention and the requirements to be complied with in respect of the notice in order for the ship to be released from the detention.



- (2) Where a ship which is detained under these Regulations which is not a Cayman Islands ship the Chief Executive Officer shall immediately inform the Consul or a diplomatic representative of the State whose flag the ship is entitled to fly, or the appropriate maritime authorities of that State, of the detention and the grounds therefor.
- (3) Where a ship is detained under these Regulations a person authorised to detain shall release the ship in accordance with the applicable provisions of section 444 of the *Merchant Shipping Law (2011 Revision)*
- (4) It is prohibited for a ship on which a detention notice has been served to proceed to sea or attempt to proceed to sea unless a release from the detention has been issued in writing by a person authorised to issue a detention order in accordance with regulation 23(3).
- (5) Notwithstanding that a detained ship may be eligible for release where any applicable fine, cost and expenses have been paid by the master or owner of the ship, or a security paid, in accordance with section 444 of the *Merchant Shipping Law (2011 Revision)* the ship shall not be released until any deficiency for which the vessel was detained has been rectified to the satisfaction of the Chief Executive Officer.

### **Issue of Improvement and Prohibition Notices**

- 25.** In addition to any action taken with respect to the detention of ships under these Regulations a surveyor or inspector appointed under section 419 of the *Merchant Shipping Law (2011 Revision)* may issue an Improvement or a Prohibition Notice in accordance with the provisions of sections 424 to 429.

### **Investigation of alleged breaches by a Cayman Islands ship reported by another Convention country**

- 26.** (1) Where, in accordance with regulation 11.4 and 11.5 of Annex VI, any Convention country furnishes to the Cayman Islands evidence that a Cayman Islands ship has emitted any substances in violation of Annex VI, the Chief Executive Officer shall cause the matter to be investigated and may request the Convention country furnishing the information to provide additional or better evidence of the allegation.
- (2) If the Chief Executive Officer is satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation then such proceedings shall be brought as soon as possible.
  - (3) The Chief Executive Officer shall inform the Convention country that has reported the alleged violation, as well as IMO, of the action taken as soon as possible.

**Investigation of alleged breaches following request by another Convention country**

27. (1) Where, in accordance with regulation 11.6 of Annex VI —
- (a) any Convention country, other than the Cayman Islands, requests the Cayman Islands to investigate an allegation that any ship entering Cayman waters has emitted any substance in violation of the Annex; and
  - (b) sufficient evidence is provided to the satisfaction of the Chief Executive Office that there is sufficient evidence in support of the allegation,
- the Chief Executive Officer shall cause such an investigation on the ship to be carried out.
- (2) Where an investigation is carried out under paragraph (1) a report on the investigation shall be forwarded to the Convention country requesting the investigation and to the Convention country whose flag the vessel is entitled to fly if this is different to the Convention country making the request.

**Right of appeal and compensation for unjustified detention or serving of Improvement or Prohibition Notice**

28. (1) Regulations 12 and 13 of the Merchant Shipping (Port State Control) Regulations, 2003, as may be amended from time to time, shall have effect in relation to a detention notice served under these Regulations subject to the reference in the Port State Control Regulations to inspector being taken to include a reference to a surveyor.
- (2) Sections 427 and 428 of the *Merchant Shipping Law (2011 Revision)* shall have effect in relation to any Improvement or Prohibition Notice issued under these Regulations.

**PART IV - CONTROL OF EMISSIONS FROM SHIPS - DIVISION 1  
– OZONE DEPLETING SUBSTANCES****Permanently sealed equipment**

29. This division does not apply to permanently sealed equipment where there are no refrigerant charging connections or potentially removable components containing ozone-depleting substances.

**Deliberate emissions of ozone depleting substances prohibited**

30. (1) The deliberate emission of an ozone-depleting substance from a ship is prohibited.
- (2) For the purposes of this regulation “deliberate emission” includes an emission occurring in the course of maintaining, servicing, repairing or disposing of



systems or equipment, but does not include minimal releases associated with the recapture or recycling of an ozone-depleting substance or emissions referred to in regulations 3(2) (b) and (c).

**Prohibition on installations with ozone depleting substances.**

- 31.** (1) Installations which contain ozone depleting substances, other than those referred to in paragraph (2) shall be prohibited —
- (a) on ships constructed on or after 19 May 2005; or
  - (b) on ships constructed before 19 May 2005, which have a contractual delivery date of 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 is on or after 19 May 2005.
- (2) Installations which contain hydrochlorofluorocarbons shall be prohibited —
- (a) on ships constructed on or after 01 January 2020; or
  - (b) on ships constructed before 01 January 2020, which have a contractual delivery date of the equipment to the ship on or after 01 January 2020 or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship is on or after 01 January 2020.
- (3) Ozone-depleting substances and equipment containing such substances shall be delivered to appropriate reception facilities when removed from ships.

**Records to be kept regarding ozone depleting substances and equipment.**

- 32.** Every ship to which regulation 3 applies and which is required to be issued with an IAPP Certificate —
- (a) shall maintain a list of equipment containing ozone depleting substances;
  - (b) where the ship has rechargeable systems containing ozone-depleting substances then there shall be maintained on board an “Ozone Depleting Substances Record Book”, which may form part of an existing log-book.

**Entries in the Ozone- Depleting Substances Record Book.**

- 33.** 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;
- (d) discharge of ozone depleting substances to land-based reception facilities; and
- (e) supply of ozone depleting substances to the ship.

## **DIVISION 2 – NITROGEN OXIDES (NOX)**

### **Application to marine diesel engines**

**34.** Subject to regulations 35 and 38, this Division applies to —

- (a) a marine diesel engine with a power output of more than 130 kW installed on a ship; and
- (b) each such engine which undergoes a major conversion on or after 01 January 2000 date except where it is demonstrated to the satisfaction of the Chief Executive Officer that such conversion is by way of an identical replacement to the engine that is replacing it and is part of the original installation under subparagraph (a).

### **Exceptions and exclusions**

**35.** This Division does not apply to —

- (a) emergency marine diesel engines, engines installed in lifeboats and any device or equipment intended to be used solely in case of emergency;
- (b) a marine diesel engine installed on a ship operating solely in Cayman Island waters where such engine is subject to an alternative NOx control measure as prescribed by the Chief Executive Officer; or
- (c) a marine diesel engine installed on a ship operating solely in Cayman Island waters where —
  - (i) the ship was constructed; or;
  - (ii) the engine underwent a major conversion, prior to 19 May 2005.

### **Major conversion and application of standards thereto**

- 36.** (1) For the purposes of this Division, major conversion means a modification, on or after 01 January 2000, of a marine diesel engine that has not already been certified to the emission standards set out in regulation 37 and where —
- (a) the engine is replaced by a marine diesel engine or an additional marine diesel engine is installed;
  - (b) any substantial modification, as defined in the revised NOx Technical Code, 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) Subject to paragraphs (3) and (4), for a major conversion involving —
  - (a) the replacement of a marine diesel engine with a non-identical marine diesel engine; or
  - (b) the installation of an additional marine diesel engine,the standards in this Division in force at the time of replacement or addition of the engine shall apply.
- (3) Subject to paragraph (4), with respect to replacement engines only, where, on or after 01 January 2016, it is not possible for such a replacement engine to meet the standards set out in regulation 37(2)(c) (Tier III), then such a replacement engine shall meet the standards set out in regulation 37(2)(b) (Tier II).
- (4) The inability, as referred to in paragraph (3), of a replacement engine to meet the Tier III standards shall be determined in accordance with any guidelines developed by the IMO which set forth the criteria as to when it is not possible for the replacement engine to meet those standards.
- (5) A marine diesel engine which undergoes substantial modification as defined in the NOx Technical Code or which has its maximum continuous rating increased by more than 10% compared to the rating of the original certification of the engine, shall —
  - (a) when installed on a ship constructed prior to 01 January 2000 meet the Tier I standards set out in regulation 37; and
  - (b) when installed on a ship constructed on or after 01 January 2000 meet the standards applicable under this Part which are in force at the time the ship was constructed.

### **Emission standards applicable to marine diesel engines**

- 37.** (1) Subject to regulations 38 and 39, the operation of a marine diesel engine to which these Regulations apply and which is installed on a ship is prohibited except where the level of emission of nitrogen oxides, calculated as the total weighted emission of NO<sub>2</sub> by such engine, is within the tiered limits set out in paragraph (2).
- (2) The tiered emission limits referred to in paragraph (1) are as follows, where n is the rated engine speed measured as crankshaft revolutions per minute —

#### **Tier I:**

- (a) for a ship constructed on or after 01 January 2000 and prior to 01 January 2011 —

- (i) 17.0 g/kWh when n is less than 130 rpm;
- (ii) g/kWh when n is 130 or more but less than 2000 rpm;
- (iii) 9.8g/kWh when n is 2000 rpm or more;

**Tier II:**

- (b) for a ship constructed on or after 01 January 2011 —
  - (i) 14.4 g/kWh when n is less than 130 rpm;
  - (ii) g/kWh when n is 130 or more but less than 2000 rpm;
  - (iii) 7.7g/kWh when n is 2000 rpm or more;

**Tier III:**

- (c) for a ship constructed on or after 01 January 2016 when operating in an emission control area —
  - (i) 3.4 g/kWh when n is less than 130 rpm;
  - (ii) g/kWh when n is 130 or more but less than 2000 rpm;
  - (iii) 2.0g/kWh when n is 2000 rpm or more,

and when operating outside an emission control area, the emission limits shall be in accordance with Tier II as set out in subparagraph (b).

- (3) The emission limits set out in paragraph (2) are subject to any subsequent amendments to or replacements of Annex VI which may be implemented by the IMO and as may be in effect in respect of the Islands;
- (4) Notwithstanding the provisions of paragraphs (1) and (2), the operation of a marine diesel engine is permitted when either an exhaust gas cleaning system or any other equivalent method approved by the Chief Executive Officer in accordance with the NOx Technical Code, is applied to the engine to reduce onboard NOx emissions at least to the applicable limit specified in paragraph (2).

**Non-application of Tier III standards to certain ships**

**38.** Subject to any review undertaken by the IMO in accordance with regulation 13.10 of Annex VI, the Tier III emission standards set out in regulation 37(2)(c) shall not apply to a marine diesel engine installed on a ship —

- (a) of less than 24 metres in length (L) when it has been specifically designed for, and is used solely, for recreational purposes; or
- (b) with a combined nameplate propulsion power of less than 750 kW if it is demonstrated, to the satisfaction of the Chief Executive Officer, that the ship cannot comply with the Tier III emission standards because of design or construction limitations of the ship.



### **Engines installed on a ship prior to 01 January 2000**

- 39.** (1) A marine diesel engine with a power output of more than 5000 kW and a per cylinder displacement of 90 litres or more installed on a ship constructed on or after 01 January 1990 but prior to 01 January 2000 shall comply with the Tier I emission standards set out in regulation 37(2)(a), provided that —
- (a) an Approved Method for that engine has been certified to the satisfaction of the Chief Executive Officer and notification of such certification has been submitted to the IMO by the Chief Executive Officer;
  - (b) compliance with this regulation shall be demonstrated by —
    - (i) a survey, using the verification procedure specified in the Approved Method file, confirming the installation of the certified Approved Method, including an appropriate notation on the ship's IAPP Certificate regarding the presence of an Approved Method; or
    - (ii) certification of the engine confirming that it operates within the limits of the Tier I, Tier II or Tier III emission standards as the case may be, together with an appropriate notation of the engine certification being inserted in the ship's IAPP Certificate.
- (2) Paragraph (1) shall apply —
- (a) no later than the first IAPP Certificate renewal survey that occurs 12 months or more after the deposit of the notification to IMO required under paragraph (1)(a); or
  - (b) where it is demonstrated by the owner of the ship, to the satisfaction of the Chief Executive Officer, that the Approved Method was not commercially available then no later than the next IAPP Certificate annual survey of the ship that falls due after the Approved Method becomes commercially available.
- (3) The IAPP Certificate issued to a ship referred to in paragraph (1) with respect to a marine diesel engine referred to in that paragraph shall, where this regulation applies to the engine, indicate that —
- (a) an Approved Method has been applied pursuant to paragraph (1)(a);
  - (b) the engine has been certified pursuant to paragraph (1)(b)(ii); or
  - (c) an Approved Method does not exist or is not yet commercially available.

### **Certification of an Approved Method**

- 40.** The procedures for the Certification of an Approved Method referred to in regulation 39 shall be in accordance with chapter 7 of the NOx Technical Code and shall include verification by the designer of the base marine diesel engine to which the Approved Method applies that —

- (a) the calculated effect of the Approved Method will not —
  - (i) decrease the engine rating by more than 1.0%;
  - (ii) increase fuel consumption by more than 2.0% as measured according to the appropriate test cycle set forth in the NOx Technical Code; or
  - (iii) adversely affect engine durability or reliability; and
- (b) the cost of the Approved Method is not excessive, which shall be determined by a comparison of the amount of NOx reduced by the Approved Method to achieve the standard set forth in regulation 37(2)(a) (Tier I standards) and the cost of purchasing and installing such Approved Method.

### **NOx Technical Code to apply for certification of an Approved Method**

41. (1) The NOx Technical Code shall be applied in the certification, testing and measurement procedures for the standards applicable to a marine diesel engine as set forth in this Division.
- (2) The procedures for determining NOx emissions as set out in the NOx Technical Code shall be based on the normal operation of the marine diesel engine being tested.

### **Cost effectiveness of Approved Method**

42. The cost of an Approved Method shall not exceed 375 Special Drawing Rights/metric ton NOx calculated in accordance with the following Cost Effectiveness formula —

Ce =

**(Cost of Approved Method 10<sup>6</sup>)**

---

$$P \text{ (KW)} \cdot 0.768 \cdot 6000 \text{ (hours/years)} \cdot 5 \text{ years} \cdot \Delta \text{NOx(g/KWh)}$$

where Ce = Cost Effectiveness and P = Power in kW;

### **Defeat devices and irrational emission control not permitted**

43. Defeat devices and irrational emission control strategies are not permitted but this shall not prevent the use of auxiliary control devices that are used to protect the engine or its ancillary equipment against operating conditions that could result in damage or failure or that are used to facilitate the starting of the marine diesel engine.



### **DIVISION 3 – SULPHUR OXIDES (SOX)**

#### **Sulphur content of fuel oil – general**

**44.** Subject to regulation 45, the sulphur content of any fuel oil used on board ships shall not exceed the following limits: —

- (a) 4.50% m/m prior to 1 January 2012;
- (b) 3.50% m/m on and after 1 January 2012; and
- (c) 0.50% m/m on and after 1 January 2020,

or such other values as may be specified under such conditions as may be prescribed by any subsequent amendments to or replacements of Annex VI which may be implemented by the IMO and as may be in effect in respect of the Islands.

#### **Sulphur content of fuel oil in Emission Control Areas**

**45.** The sulphur content of any fuel oil used on board a ship to which these Regulations apply while operating in an Emission Control Area shall not exceed the following limits within the time frames specified —

- (a) 1.50% m/m prior to 1 July 2010;
- (b) 1.00% m/m on and after 01 July 2010; and
- (c) 0.10% m/m on and after 1 July 2015,

or such other values as may be specified under such conditions as may be prescribed by any subsequent amendments to or replacements of Annex VI which may be implemented by the IMO and as may be in effect in respect of the Islands.

#### **Fuel oil documentation by supplier**

**46.** The sulphur content of fuel oil referred to in regulations 44 and 45 shall be documented by its supplier as required by regulations 56(2) and 60(2).

#### **Blending of fuel oils to achieve sulphur content limits for operating in an Emission Control Area**

- 47.** (1) Ships to which these Regulations apply using separate fuel oils to comply with regulation 45 and entering or leaving an Emission Control Area set forth in regulation 2 shall carry a written procedure showing how the fuel oil change-over 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 regulation 45 prior to entry into an Emission Control Area.
- (2) The master of any ship using separate fuel oils to comply with regulation 45 must record —

- (a) the date, time and position of the ship when any fuel changeover operation is completed prior to entry into an Emission Control Area;
- (b) the date, time and position of the ship when any fuel changeover operation is commenced after exit from an Emission Control Area; and
- (c) the volume in each tank at the time of the completion or commencement of each of the changeovers specified in subparagraphs (a) and (b).

### **Application of sulphur limits for new or changed Emission Control Areas**

- 48.** Where an amendment in the designation of or an addition to an Emission Control Area enters into force then during the first twelve months immediately following, any ship to which these regulations apply operating in such an amended or additional Area shall be exempt from the requirements of regulations 45 and 47 and from the requirements of regulation 46 insofar as they relate to regulation 45.

## **DIVISION 4 –VAPOUR EMISSION CONTROL**

### **Fitting of vapour emission control systems on board ship**

- 49.** (1) Any —
- (a) Cayman Islands ship; or
  - (b) other ship registered or entitled to be registered in a Convention country, whilst in Cayman waters,
- which is subject to vapour emission control within a port or terminal notified to the IMO pursuant to regulation 15.2 of MARPOL Annex VI shall be provided with a vapour collection system approved by or on behalf of a Convention country taking into account any safety standards developed by the IMO.
- (2) With respect to a gas carrier, as defined in the IGC Code, this regulation shall apply only when the type of unloading and containment system on the tanker allows for the safe retention of non-methane volatile organic compounds on board or their safe return ashore.

### **Volatile Organic Compound Control Management Plan**

- 50.** (1) A Cayman Islands tanker carrying crude oil shall have on board and implement a Volatile Organic Compound (VOC) Control Management Plan approved by the Chief Executive Officer or a person so authorised by him for the purpose.
- (2) The VOC Management Plan referred to in paragraph (1) shall —
- (a) be prepared taking into account the guidelines developed by the IMO;
  - (b) be ship specific;



- (c) give consideration to the additional Volatile Organic Compounds- (VOCs) generated by Crude Oil Washing of the cargo tanks;
  - (d) provide written procedures for minimising VOC emissions during the loading, sea passage and discharge of cargo; and
  - (e) identify a person responsible for implementing the plan.
- (3) The Plan shall be written in English but where —
- (a) the ship is engaged on international voyages; and
  - (b) English is not a language readily understood by personnel on board,
- the owner shall provide an accurate translation of the text of the Plan into a language understood by those serving on board.

## **PART V– SHIPBOARD INCINERATION**

### **Shipboard incineration and installation and use of incinerators**

- 51.** (1) Subject to paragraph (7) shipboard incineration shall be allowed only in a shipboard incinerator approved for the purpose.
- (2) Subject to paragraph (6), each incinerator installed on board a Cayman Islands ship on or after 01 January 2000 shall meet the requirements set out in Schedule 1 and shall be approved by or on behalf of a Convention country, taking into account the standard specification for shipboard incinerators developed by the IMO.
- (3) Subject to regulation 55(b), the owner of a ship on which a shipboard incinerator was installed on or after 01 January 2000 shall, on demand, demonstrate to a surveyor that the incinerator has been approved in accordance with paragraph (1).
- (4) An incinerator installed in accordance with the requirements 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 specified in Schedule 1.
- (5) Personnel responsible for the operation of an incinerator installed under this Part shall be trained to implement the guidance provided in the manufacturer's operating manual required under paragraph (4).
- (6) An incinerator installed on a Cayman Islands ship prior to 19 May 2005 need not comply with the provisions of paragraph (2) where the ship is operating solely in Cayman Island waters.
- (7) Shipboard incineration of sewage sludge and sludge oil generated during the normal operation of the ship may also take place in the main or auxiliary

power plant or the boilers of the ship, but in such cases such incineration shall not take place inside ports and harbours and estuaries.

### **Prohibition on the incineration of certain substances**

- 52.** (1) Shipboard incineration of the following substances is prohibited —
- (a) residues of cargoes subject to Annex I, II or III of MARPOL, or any related contaminated packing material;
  - (b) polychlorinated biphenyls (PCBs);
  - (c) garbage, as defined by Annex V of MARPOL, which contains 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
  - (f) exhaust gas cleaning system residues.
- (2) The shipboard incineration of polyvinyl chlorides (PVCs) is prohibited except in a shipboard incinerator for which in IMO type approval certificate has been issued in accordance with IMO Resolution MEPC.59(33) or MEPC.76 (40), as may be amended or replaced from time to time and with Schedule 1.

### **Prohibition on the use of shipboard incinerators whilst in Cayman ports or harbours etc.**

- 53.** (1) Subject to paragraph (2), shipboard incineration is prohibited on any ship whilst in any port, harbour, bay or anchorage around the coasts of the Cayman Islands.
- (2) Should a ship be delayed due to unforeseen circumstances beyond the control of the master for an extended period in any port, harbour, bay or anchorage around the coasts of the Cayman Islands such that the amount of accumulated ship generated garbage on board presents a potential health hazard, the master of the ship may make application in writing to the Port Authority for authorisation to use the shipboard incinerator to the extent necessary and the Port Authority may issue, on whatever terms and conditions it sees fit, such an authorisation.
- (3) Where the use of any shipboard incinerator is authorised under this regulation then such use shall be in strict compliance with the terms and conditions contained in the authorisation.
- (4) Any breach of this regulation or of the terms of any authorisation issued hereunder shall constitute an offence by the master.



### **Combustion chamber temperatures**

- 54.** (1) For any incinerator installed in accordance with the requirements of this Part, the combustion chamber gas outlet temperature should be monitored at all times the unit is in operation.
- (2) Where the incinerator is of the continuous feeding type, wastes shall not be fed into the unit when the combustion chamber gas outlet temperature is below 850°C.
- (3) Where an incinerator referred to in paragraph (2) is of the batch-loaded type, the unit shall be designed so that the combustion chamber gas outlet temperature shall reach 600°C within 5 minutes after start-up and will thereafter stabilise at a temperature of not less than 850°C.

### **Preservation of the London Convention**

- 55.** Nothing in these Regulations shall —
- (a) affect 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; or
- (b) preclude the development, installation and operation of alternative design shipboard thermal waste treatment devices that meet or exceed the requirements for incinerators set out in this Part to the satisfaction of the Chief Executive Officer.

## **PART VI— FUEL OIL AVAILABILITY AND QUALITY**

### **Non-application to certain fuels**

- 56.** (1) Subject to paragraph (2), this Part does not apply to —
- (a) coal in its solid form;
- (b) nuclear fuels; or
- (c) gas fuels such as Liquefied Natural Gas, Compressed Natural Gas or Liquefied Petroleum Gas;
- (2) The sulphur content of gas fuels delivered to a ship to which these Regulations apply shall be documented by the supplier.

### **Fuel Oil Quality**

- 57.** (1) Subject to regulation 58, fuel oil for combustion purposes delivered to and used on board ships to which these regulations apply shall meet the requirements set out in paragraph (2).
- (2) The fuel oil shall —

- (a) be blends of hydrocarbons derived from petroleum refining but this shall not preclude the incorporation of small amounts of additives intended to improve some aspects of performance;
- (b) be free from inorganic acid; and
- (c) not include any added substance or chemical waste which —
  - (i) jeopardizes the safety of ships or adversely affects the performance of the machinery;
  - (ii) is harmful to personnel; or
  - (iii) contributes overall to additional air pollution.

**Fuel oil derived by methods other than petroleum refining**

- 58.** Fuel oil for combustion purposes derived by methods other than petroleum refining shall not —
- (a) exceed the applicable sulphur content set forth in regulations 44 and 45;
  - (b) cause an engine to exceed the applicable NO<sub>x</sub> emission limit set forth in regulation 37(2);
  - (c) contain inorganic acid;
  - (d) jeopardize the safety of ships or adversely affect the performance of the machinery;
  - (e) be harmful to personnel; or
  - (f) contribute overall to additional air pollution.

**Master to ensure compliant fuel is used on board ship.**

- 59.** Subject to regulation 60, the master of a ship to which these Regulations apply shall ensure that fuel oil on board used, or intended to be used, for combustion purposes meets the requirements of regulation 57 or 58 as appropriate.

**Action in the event of non-compliance regarding fuel oil**

- 60.** (1) This regulation applies to any Cayman Islands ship wherever it may be and any other ship in Cayman Islands waters, other than a platform in transit, to which these Regulations apply.
- (2) Where a ship is unable to purchase fuel which meets the relevant requirements of these Regulations, the master or owner shall notify the Chief Executive Officer as soon as possible and shall also notify the Port State authorities at the ship's port of destination.
- (3) Where it is established that a ship referred to in paragraph (1) is not in compliance with the fuel oil standards set out in these Regulations, the ship may be required to provide to the Chief Executive Officer or an officer referred to in regulation 21(1) —



- (a) a record of the actions taken by the ship in its efforts to achieve compliance; and
- (b) evidence that —
  - (i) attempts were made to purchase compliant fuel oil for the ship in accordance with its voyage plan but such fuel was not available within the planned voyage; and
  - (ii) where compliant fuel oil was not available within the ports or terminals covered in the voyage plan, best efforts were made to locate alternative sources of compliant fuel oil without success.
- (4) Where a ship provides the information set out in paragraph (3), the Chief Executive Officer shall take into account all relevant circumstances and the evidence provided in determining what action, if any, should be taken with respect to the ship.
- (5) The ship should not be required to deviate from its intended voyage or to delay unduly the voyage in order to achieve compliance with respect to fuel oil.
- (6) The Chief Executive Officer shall notify the IMO of each occasion when a ship to which this regulation applies has presented evidence of the non-availability of compliant fuel oil.

### **Bunker Delivery Note and fuel oil sample**

- 61.** (1) This regulation applies in relation to —
- (a) any Cayman Islands ship, wherever it may be, which is required to hold an IAPP Certificate;
  - (b) any other ship which is required to hold an IAPP certificate whilst it is in Cayman waters, other than a platform in transit; and
  - (c) any supplier within the Cayman Islands of fuel oil to any ship to which this Part applies.
- (2) Where a supplier of fuel oil delivers fuel oil to which this Part applies for combustion purposes to any ship referred to in paragraph (1), that supplier shall —
- (a) provide the ship with a Bunker Delivery Note that is signed and certified by the fuel oil supplier in accordance with the provisions of Schedule 2;
  - (b) retain a copy of the Bunker Delivery Note for a minimum period of three years from the date of delivery of the fuel oil and, where required in accordance with regulation 62, make this copy available for inspection by the Chief Executive Officer or a person authorised by him; and
  - (c) provide a representative sample of the fuel oil delivered to the ship to accompany the bunker delivery note which shall —

- (i) be collected in accordance with any guidelines developed by the IMO; and
  - (ii) on completion of the bunkering operation be sealed and signed by a fuel oil supplier representative and the master or officer in charge of the bunkering operation on board the ship.
- (3) The master of a ship which receives fuel oil to which these Regulations apply from a fuel oil supplier anywhere shall retain on board, for a period of at least three years and so as to be readily available for inspection at all reasonable times, the Bunker Delivery Note required by this regulation.
- (4) The master of a ship which receives fuel oil to which these Regulations apply from a fuel oil supplier anywhere shall retain on board under the control of the ship the sample of fuel oil referred to in paragraph (2)(c) until the fuel oil to which it pertains has been substantially consumed or for a period of twelve months, whichever first occurs.
- (5) The sample of fuel oil referred to in paragraph (4) shall be produced on demand, at all reasonable times, during the period in which it has to be retained, to a surveyor or officer authorised under regulation 21 (1).

### **Registration of fuel oil suppliers in the Cayman Islands**

- 62.** (1) In addition to meeting the requirements of regulation 61(2), a supplier of fuel oil within the Cayman Islands who delivers fuel oil to which these Regulations apply for combustion purposes to any ship referred to in regulation 61(1) shall register with the Maritime Authority or any other such Cayman Islands Government Department as may be agreed between the Chief Executive Officer and that other Department, by submitting annually an annual declaration in a form specified by the Chief Executive Officer.
- (2) The initial declaration referred to in paragraph (1) shall be made within three months of the date upon which these Regulations enter into force and thereafter annually within three months of the date of submission of the initial declaration and any Cayman Islands supplier who fails to submit such declaration within the timeframe required will be deemed to be no longer delivering fuel oil to ships to which these Regulations apply and will be removed from the register and shall not engage in the delivery of fuel oil to ships.
- (3) No person shall supply a ship to which these Regulations apply with fuel oil from within the Cayman Islands that does not comply with the applicable requirements of these Regulations.
- (4) The Chief Executive Officer shall inform the IMO of all cases where the fuel oil suppliers have failed to meet the requirements with respect to fuel oil set out in these Regulations.



### **Inspection of Bunker Delivery Note and analysis of fuel sample.**

- 63.** (1) A Bunker Delivery Note —
- (a) required under regulation 61(2)(a); or
  - (b) issued by a fuel oil supplier outside the Islands to —
    - (i) a Cayman Islands ship; or
    - (ii) any other ship while it is in Cayman waters,
- shall be produced for inspection at all reasonable times when so required by a surveyor or other person appointed to undertake inspections in accordance with regulation 21(1), and a copy thereof may be required.
- (2) The Chief Executive Officer may require a sample of fuel oil required retained under regulation 61(2)(c) to be analysed in accordance with the procedures set out in Appendix VI to Annex VI.
- (3) The inspection of Bunker Delivery Notes or the taking of copies thereof and the analysis of fuel oil samples shall be performed as expeditiously as possible without causing undue delay to the ship.

### **Action where non-compliant fuel is found on board ship**

- 64.** With respect to Port State Control inspections within Cayman Islands waters of ships to which these Regulations apply, where it is discovered that a ship has on board non-compliant fuel oil, the Chief Executive Officer shall —
- (a) inform the State under whose jurisdiction the relevant Bunker Delivery Note was issued, giving all relevant information; and
  - (b) ensure that appropriate remedial action is taken to bring the non-compliant fuel oil into compliance.

### **Arrangements for ships on scheduled services**

- 65.** Where a Cayman Islands ship, other than a platform, of 400 gross tonnage or more is on a scheduled service or services with frequent and regular port calls, the Chief Executive Officer may, in consultation with the relevant Port States, permit an alternative arrangement with respect to the retention on board of the Bunker Delivery Note provided that such arrangement gives a similar certainty of compliance with regulations 44 and 45 and with regulations 57, 58 and 61.

### **Promotion of the availability of compliant fuel oil**

- 66.** The Chief Executive Officer, or a person authorised by him, shall —
- (a) take all reasonable steps, including liaison as appropriate with other relevant Government departments and fuel oil suppliers, to promote the availability in the Cayman Islands of fuel oils which comply with these regulations; and

- (b) inform the IMO of the availability of compliant fuel oils in Cayman Islands ports and terminals.

## PART VII – OFFENCES AND ENFORCEMENT

### Offences-general

67. Subject to the provisions of this Part, any contraventions of the provisions of the Regulations contained in the first column of the Table shall constitute an offence by the person indicated in the second column for which that person shall be liable to the fine indicated in the third column of the Table —

| REGULATION    | OFFENCE BY                     | LIABLE TO FINE OF (\$) |
|---------------|--------------------------------|------------------------|
| 5(1).         | Owner and master.              | 50,000.                |
| 6(1).         | Owner and master.              | 50,000.                |
| 7(1).         | Owner and master.              | 35,000.                |
| 8(1).         | Owner and master.              | 40,000.                |
| 9(1).         | Owner and master.              | 50,000.                |
| 9(2).         | Owner and master.              | 35,000.                |
| 9(3) and (4). | Owner and master.              | 35,000.                |
| 10(2).        | Owner and master.              | 50,000.                |
| 16(3).        | Owner and master.              | 50,000.                |
| 17(5).        | Owner.                         | 40,000.                |
| 19(2).        | Owner and master.              | 25,000.                |
| 19(3).        | Person committing the offence. | 35,000.                |
| 19(4).        | Owner and master.              | 20,000.                |
| 20(1).        | Owner and master.              | 50,000.                |
| 20(2).        | Owner and master.              | 50,000.                |
| 30(1)         | Master.                        | 50,000.                |
| 31(1).        | Owner and master.              | 40,000.                |
| 31(2).        | Owner and master.              | 40,000.                |



| REGULATION | OFFENCE BY         | LIABLE TO FINE OF (\$) |
|------------|--------------------|------------------------|
| 32.        | Owner and master.  | 20,000.                |
| 33.        | Owner and master.  | 20,000.                |
| 37(1).     | Owner and master.  | 50,000.                |
| 44.        | Master.            | 30,000.                |
| 45.        | Master.            | 40,000.                |
| 47(1).     | Owner and master.  | 35,000.                |
| 47(2).     | Owner and master.  | 40,000.                |
| 49(1).     | Owner and master.  | 40,000.                |
| 50(1).     | Owner and master.  | 30,000.                |
| 50(3).     | Owner and master.  | 30,000.                |
| 51(1).     | Owner and master.  | 50,000.                |
| 51(3).     | Owner.             | 50,000.                |
| 51(4).     | Master.            | 25,000                 |
| 51(5).     | Master.            | 35,000.                |
| 51(7).     | Master.            | 40,000.                |
| 52(1).     | Master.            | 40,000.                |
| 52(2).     | Master.            | 40,000.                |
| 53(1)      | Master             | 30,000                 |
| 53(3)      | Master             | 30,000                 |
| 54(1).     | Master.            | 25,000.                |
| 54(2).     | Master.            | 25,000.                |
| 54(3).     | Master.            | 25,000.                |
| 59.        | Master.            | 50,000.                |
| 60(2).     | Owner and master.  | 30,000.                |
| 60(3).     | Owner and master.  | 30,000.                |
| 61(2).     | Fuel oil supplier. | 40,000.                |

| REGULATION | OFFENCE BY                    | LIABLE TO FINE OF (\$) |
|------------|-------------------------------|------------------------|
| 61(3).     | Master.                       | 40,000.                |
| 61(4).     | Master.                       | 40,000.                |
| 61(5).     | Master.                       | 40,000.                |
| 62(1).     | Fuel oil supplier.            | 40,000.                |
| 62(2).     | Fuel oil supplier.            | 25,000.                |
| 62(3).     | Fuel oil supplier.            | 50,000.                |
| 63(1).     | Master and fuel oil supplier. | 35,000.                |

### **False declaration on Bunker Delivery Note**

- 68.** If a fuel oil supplier or his representative makes a false declaration in the Bunker Delivery Note he commits an offence punishable on summary conviction by a fine of fifty thousand dollars.

### **Other persons party to the commission of an offence**

- 69.** Notwithstanding the provisions of regulation 67, where it is proven that any other person is knowingly party to the commission of an offence then that person also commits the offence.

### **Act or default of other persons**

- 70.** Where an offence under these Regulations is committed, or would have been committed save for the operation of regulation 71, by any person due to the act or default of some other person, that other person has also committed the offence, and a person may be charged with and convicted of an offence by virtue of this regulation whether or not proceedings are taken against the first mentioned person.

### **Defence**

- 71.** It shall be a defence for a person charged under these Regulations to show that they took all reasonable precautions and exercised all due diligence to avoid the commission of the offence.



### **Offences by officers of bodies corporate**

- 72.** (1) Where a body corporate is guilty of an offence under these Regulations that offence is proved to have been committed with the consent or connivance of, or to be attributable to any neglect on the part of, any director, manager, secretary or other similar officer of the body corporate or any person who was purporting to act in any such capacity, he as well as the body corporate are guilty of an offence and liable to be proceeded against accordingly.
- (2) Where the affairs of a body corporate are managed by its members, paragraph (1) shall apply in relation to the acts and defaults of a member in connection with its functions of management as if he were a director of the body corporate.



## SCHEDULE 1

### TYPE APPROVAL AND OPERATING LIMITS FOR SHIPBOARD INCINERATORS

#### (Part V)

1. Shipboard incinerators described in Part V shall possess an International Maritime Organization (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 Part V. Each model shall be subject to a specified type approval test operation at the factory or an approved test facility acceptable to the Chief Executive Officer, 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 —

#### I. SLUDGE OIL CONSISTING OF —

- (a) 75% sludge oil from HFO;
- (b) 5% waste lubricating oil; and
- (c) 20% emulsified water

#### II. SOLID WASTE CONSISTING OF —

- (a) 50% food waste; and
  - (b) 50% rubbish containing —
    - (i) Approx. 30% paper;
    - (ii) Approx. 40% cardboard;
    - (iii) Approx. 10% rags;
    - (iv) Approx. 20% plastic, and
  - (c) the mixture will have up to 50% moisture and 7% incombustible solids.
2. Shipboard incinerators installed on or after 1st January 2000 shall operate within the following limits-
  - (a) O<sub>2</sub> in combustion chamber: 6% - 12%
  - (b) CO in flue gas maximum average: 200 mg/MJ
  - (c) 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)

- (d) Unburned components in 10% by weight.  
ash residues: maximum
- (e) Combustion chamber flue 850°-1200° centigrade  
gas outlet temperature  
range:

## **SCHEDULE 2**

### **INFORMATION TO BE INCLUDED IN A BUNKER DELIVERY NOTE**

(Regulation 61)

1. Name and IMO number of receiving ship.
2. Port.
3. Date of commencement of delivery.
4. Name, address and telephone number of fuel oil supplier.
5. Product name.
6. Quantity in metric tons.
7. Density at 15° (kg/m<sup>3</sup>) where the fuel has been tested in accordance with ISO 3675:1998<sup>1</sup> or ISO 12185:1996.
8. Sulphur content (%m/m) where the fuel has been tested in accordance with ISO 8754:2003<sup>2</sup>.
9. A declaration signed and certified by the fuel oil supplier that the fuel oil is in compliance with the applicable paragraph of regulation 14.1 or 14.4 and regulation 18 of Annex VI.

---

<sup>1</sup> ISO Standard – Crude Petroleum and Liquid Petroleum Products – Laboratory Determination of Density – Hydrometer Method: ISO Publication: ISBN 0-580-38570-1.

<sup>2</sup> ISO Standard – Petroleum Products – Determination of Sulphur Content – Energy Dispersive X-Ray Fluorescence Spectrometry: ISO Publication: ISBN 0-580-42400-6.

**SCHEDULE 3****EMISSION CONTROL AREAS****(Regulation 2)**

1. The emission control area for the Baltic Sea and North Sea comprises —
  - (a) the Baltic Sea proper with the Gulf of Bothnia, the Gulf of Finland and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at latitude 57° 44.8' N;
  - (b) the North Sea being all sea areas within the following boundaries including the North Sea proper and the English Channel and its approaches —
    - (i) the North Sea southwards of latitude 62°N and eastwards of longitude 4°W;
    - (ii) the Skagerrak, the southern limit of which is determined east of the Skaw by latitude 57° 44.8' N; and
    - (iii) the English Channel and its approaches eastwards of longitude 5°W and northwards of latitude 48°30' N.
2. The emission control area for North America comprises —
  - (a) the sea area located off the Pacific coasts of the United States and Canada, enclosed by geodesic lines connecting the following coordinates-

| <b>Point</b> | <b>Latitude</b> | <b>Longitude</b> |
|--------------|-----------------|------------------|
| 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.  |



| Point | Latitude       | Longitude       |
|-------|----------------|-----------------|
| 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. |

| Point | Latitude       | Longitude       |
|-------|----------------|-----------------|
| 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. |



| Point | Latitude       | Longitude      |
|-------|----------------|----------------|
| 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. |

| Point | Latitude       | Longitude      |
|-------|----------------|----------------|
| 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. |



| Point | Latitude       | Longitude      |
|-------|----------------|----------------|
| 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. |
| 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. |

| Point | Latitude       | Longitude      |
|-------|----------------|----------------|
| 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. |



| Point | Latitude       | Longitude      |
|-------|----------------|----------------|
| 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. |

| Point | Latitude       | Longitude      |
|-------|----------------|----------------|
| 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. |
| 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. |



| Point | Latitude       | Longitude      |
|-------|----------------|----------------|
| 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. |

| Point | Latitude       | Longitude      |
|-------|----------------|----------------|
| 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 Hawai.i, Maui, Oahu, Moloka.i, Ni.i hau, 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. |



| Point | Latitude       | Longitude       |
|-------|----------------|-----------------|
| 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. |

| Point | Latitude       | Longitude       |
|-------|----------------|-----------------|
| 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. |

**Made in Cabinet the 29th day of January, 2013.**

**Kim Bullings**  
*Clerk of the Cabinet.*

