S.I. No. 728/2007 — Sea Pollution (Prevention of Air Pollution from Ships) Regulations 2007

S.I. No. 728 of 2007

SEA POLLUTION (PREVENTION OF AIR POLLUTION FROM SHIPS) REGULATIONS 2007

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S.I. No. 728 of 2007

SEA POLLUTION (PREVENTION OF AIR POLLUTION FROM SHIPS) REGULATIONS 2007

Notice of the making of this Statutory Instrument was published in

"Iris Oifigiúil" of 6*th November*, 2007.

I, NOEL DEMPSEY, Minister for Transport, in exercise of the powers conferred on me by sections 10, 11, 12, 14, 15 and 17 of the Sea Pollution Act 1991 (No. 27 of 1991), as amended, and the Maritime Transport, Safety and Security (Transfer of Departmental Administration and Ministerial Functions) Order 2005 (S.I. No. 842 of 2005) and for the purpose of giving effect to Annex VI of the MARPOL Convention, hereby make the following regulations:

PART 1 General

Citation

1. These Regulations may be cited as Sea Pollution (Prevention of Air Pollution from Ships) Regulations 2007.

Application

2. The provisions of these Regulations shall apply to all ships, except where expressly provided otherwise in Regulations 5, 6, 13, 15, 18 and 19.

Interpretation

3. (1) In these Regulations:

“the Act” means the Sea Pollution Act 1991 (No. 27 of 1991) as amended;

“Anniversary date” means the day and the month of the year which will correspond to the date of expiry of the International Air Pollution Prevention Certificate;

“continuous feeding”, in relation to incineration, 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 temperature between 850°C and 1200°C;

“emission” means any release of any substance, which is subject to control by these Regulations, from ships into the atmosphere or sea;

“IAPP Certificate” means an International Air Pollution Prevention Certificate;

“inspector” means an officer appointed by the Minister under Regulation 5(1) of the European Communities Merchant Shipping (Port State Control) Regulations 1998 (S.I. No. 145 of 1998);

“MARPOL Convention” means the International Convention for the Prevention of Pollution from Ships 1973, as amended by the Protocols of 1978 and 1997;

“new installations”, in relation to Regulation 12, means the installation of systems, equipment, including new portable fire extinguishing units, insulation or other material on a ship after the date on which these Regulations enter into force, but excludes repair or recharge of previously installed systems, equipment, insulation, or other material, or recharge of portable fire-extinguishing units;

“NO x . Technical Code” means the Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines adopted by Conference resolution 2, as may be amended by the Organization, provided that such amendments are adopted and brought into force in accordance with the provisions of article 16 of the present MARPOL Convention concerning amendment procedures applicable to an appendix to an Annex;

“Organization” means the International Maritime Organization;

“ozone-depleting substances” means controlled substances defined in paragraph 4 of article 1 of the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, listed in Annexes A, B, C or E to that Protocol in force at the time of application or interpretation of these Regulations, and ozone-depleting substances that may be found on board ship include, but are not limited to—

Halon 1211 Bromochlorodifluoromethane

Halon 1301 Bromotrifluoromethane

Halon 2402 1,2-Dibromo-1,1,2,2-terafluoroethan (also known as Halon 114B2)

CFC-11 Trichlorofluoromethane

CFC-12 Dichlorodifluoromethane

CFC-113 1,1,2-Trichloro-1,2,2-trifluoroethane

CFC-114 1,2-Dichloro-1,1,2,2-tetrafluoroethane

CFC-115 Chloropentafluoroethane;

“Party” means a state which has ratified the MARPOL Convention;

“Protocol of 1997” means the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocol of 1978 relating thereto, which entered into force internationally on 15th May 2005;

“qualified person” means a surveyor of ships or a recognised organisation;

“recognised organisation” means an organisation recognised by the Commission of the European Communities under Article 4 of Council Directive 94/57/EC (OJ No. L319, 12.12.94, p. 20), as amended, and by the Minister under European Communities (Ship Inspection and Survey Organisations) Regulation, 2003 (S.I. No. 301 of 2003);

“shipboard incineration” means the incineration of wastes or other matter on board a ship, if such wastes or other matter were generated during the normal operation of that ship;

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

“ships constructed” means ships the keels of which are laid or which are at a similar stage of

construction;

"similar stage of construction" means the stage at which—

(*a*) construction identifiable with a specific ship begins, and

(*b*) assembly of that ship has commenced comprising at least 50 tonnes or one per cent of the estimated mass of all structural material, whichever is the lesser;

"sludge oil" means sludge from the 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;

"SO X emission control area" means an area where the adoption of special mandatory measures for SO X emissions from ships is required to prevent, reduce and control air pollution from SO X and its attendant adverse impacts on land and sea areas. SO X emission control areas include those set out in Regulation 14;

"surveyor" means a surveyor of ships or other competent person appointed under section 20 of the Act for the purposes of section 17 of the Act;

"tanker" means an oil tanker as defined in regulation 1(5) of Annex I or a chemical tanker as defined in regulation 1(16) of Annex II of the MARPOL Convention;

(2) Any reference in these Regulations to standards and guidelines developed by the Organization, shall include a reference to any document amending those standards and guidelines which is considered by the Minister to be relevant from time to time and is specified in a Marine Notice.

Equivalents

4. A fitting, material, appliance or apparatus may be fitted in a ship as an alternative to that required by these Regulations if a qualified person is satisfied that such fitting, material, appliance or apparatus is at least as effective as that required by these Regulations.

PART 2 Survey, Certification and Means of Control

Surveys

5. (1) Every ship of 400 gross tonnage or above and every fixed and floating drilling rig and other platforms shall be subject to the following surveys:

(*a*) an initial survey made—

(i) before the ship is put into service, or

(ii) before the certificate required under Regulation 6 is issued for the first time;

and this survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of these Regulations;

(*b*) a renewal survey made at intervals specified by the Minister, but not exceeding 5 years, except where paragraph (2), (5), (6) or (7) of Regulation 9 is applicable; this survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with applicable requirements of these Regulations;

(*c*) an intermediate survey made—

(i) within 3 months before or after the second anniversary date,

or,

(ii) within 3 months before or after the third anniversary date,

of the certificate which shall take the place of one of the annual surveys specified in subparagraph (*d*); this survey shall be such as to ensure that the equipment and arrangements fully comply with the applicable requirements of these Regulations and are in good working order and be endorsed on the certificate issued under Regulation 6 or 7;

(*d*) an annual survey made within 3 months before or after each anniversary date of the certificate, including a general inspection of the equipment, systems, fittings, arrangements and material referred to in subparagraph (*a*) to ensure that they have been maintained in accordance with paragraph (4) and that they remain satisfactory for the service for which the ship is intended; each such survey shall be endorsed on the certificate issued under Regulation 6 or 7;

(*e*) an additional survey, either general or partial, according to the circumstances, shall be made after a repair resulting from investigations prescribed in paragraph (4), or whenever any important repairs or renewals are made; such a survey shall be made so as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of these Regulations.

(2) Ships of less than 400 gross tonnage shall comply with such measures as may be determined by the Minister in order to ensure that the applicable provisions of these Regulations are complied with.

(3) (*a*) Surveys of ships, as regards the enforcement of the provisions of these Regulations, shall be carried out by a qualified person.

(*b*) The survey of engines and equipment for compliance with Regulation 13 shall be conducted in accordance with the NO X Technical Code.

(*c*) (i) When the qualified person determines that the condition of the equipment does not correspond substantially with the particulars of the certificate, he or she shall ensure that corrective action is taken and shall in due course notify the Minister.

(ii) If such corrective action is not taken, the Minister shall consider withdrawing the certificate.

(iii) If the ship is in a port of another Party, the appropriate authorities of the port State shall be notified immediately. When the qualified person has notified the appropriate authorities of the port State, he or she may request any necessary assistance to carry out his or her functions under this Regulation.

(4) (*a*) The equipment shall be maintained to conform with the provisions of these Regulations and no changes shall be made in the equipment, systems, fittings, arrangements, or material covered by the survey without the express approval of the Minister. The direct replacement of such equipment and fittings with equipment and fittings that conform with the provisions of these Regulations is permitted.

(*b*) Whenever an accident occurs to a ship or a defect is discovered, which substantially affects the efficiency or completeness of its equipment covered by these Regulations, the master or owner of the ship shall report at the earliest opportunity to the Minister and qualified person responsible for issuing the relevant certificate.

(5) The Minister shall, upon receipt of an application for survey and on payment of such fee (if any) as may be prescribed by him or her under section 17 of the Act, cause the ship to be surveyed by a surveyor of ships.

Issue or endorsement of IAPP Certificate

6. (1) An International Air Pollution Prevention Certificate (an IAPP Certificate) shall be issued, after an initial or renewal survey in accordance with the provisions of Regulation 5, to each of the following:

(*a*) any ship of 400 gross tonnage and above engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties;

(*b*) platforms and drilling rigs engaged in voyages to waters under the sovereignty or jurisdiction of other Parties to the Protocol of 1997.

(2) Ships constructed before the date of entry into force of the Protocol of 1997 shall be issued with an IAPP Certificate in accordance with paragraph (1) no later than the first scheduled drydocking after entry into force of the Protocol of 1997, but in no case later than 3 years after entry into force of the Protocol of 1997.

(3) An IAPP Certificate shall be issued or endorsed as appropriate by a recognised organisation, or a person authorised by the Minister on receipt of a declaration of survey carried out by a

surveyor of ships.

Issue or endorsement of IAPP Certificate by another Government

7. (1) A ship which is entitled to fly the flag of the State may, at the request of the Minister, be surveyed in accordance with the corresponding provisions for or laid down by or on behalf of the Government of another Party, and on compliance with the corresponding provisions, be issued with an IAPP Certificate, or where appropriate, have the IAPP Certificate on the ship endorsed.

(2) A ship which is entitled to fly the flag of another Party may be surveyed by a surveyor of ships, at the request of the Government of that Party, and, if the surveyor is satisfied that the provisions of these Regulations are complied with, shall cause an IAPP Certificate to be issued to the ship and, where appropriate, endorse or authorise the endorsement of that Certificate on the ship in accordance with these Regulations.

(3) No IAPP Certificate shall be issued to a ship which is entitled to fly the flag of a State which is not a Party to the Protocol of 1997.

Form of IAPP Certificate

8. The IAPP Certificate shall be in the form set out in Schedule 1.

Duration and validity of IAPP Certificate

9. (1) An IAPP Certificate shall be issued for a period specified by a qualified person, which shall not exceed 5 years.

(2) (*a*) Notwithstanding the requirements of paragraph (1), when the renewal survey is completed within 3 months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing certificate.

(*b*) When the renewal survey is completed after the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing certificate.

(*c*) When the renewal survey is completed more than 3 months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of completion of the renewal survey.

(3) If an IAPP Certificate is issued for a period of less than 5 years, a qualified person may extend the validity of the certificate beyond the expiry date to the maximum period specified in paragraph (1), provided that the surveys referred to in subparagraph (*c*) or (*d*) of Regulation 5(1) are carried out as appropriate.

(4) If 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, a qualified person may endorse the existing certificate and such a certificate shall be accepted as valid for a further period which shall not exceed 5 months from the expiry date.

(5) If a ship, at the time when an IAPP Certificate expires, is not in a port in which it is to be surveyed, the Minister may extend the period of validity of the certificate but such extension shall be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed, and then only in cases where it appears proper and reasonable to do so. No certificate shall be extended for a period longer than 3 months, and a ship to which an extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port without having a new certificate. When the renewal survey is completed, the new certificate shall be valid to a date not exceeding 5 years from the date of expiry of the existing certificate before the extension was granted.

(6) An IAPP Certificate issued to a ship engaged on short voyages which has not been extended under the foregoing provisions of this Regulation may be extended by the Minister for a period of up to one month from the date of expiry stated on it. When the renewal survey is completed, the new certificate shall be valid to a date not exceeding 5 years from the date of expiry of the existing certificate before the extension was granted.

(7) In such special circumstances, as the Minister may determine, a new IAPP Certificate need not be dated from the date of expiry of the existing certificate as required by paragraph (2)(*b*), (5) or (6). In these special circumstances, the new certificate shall be valid to a date not exceeding 5 years from the date of completion of the renewal survey.

(8) If an annual or intermediate survey is completed before the period specified in Regulation 5, then:

(*a*) the anniversary date shown on the certificate shall be amended by endorsement to a date which shall not be more than 3 months later than the date on which the survey was completed;

(*b*) the subsequent annual or intermediate survey required by Regulation 5 shall be completed at the intervals prescribed by that Regulation using the new anniversary date;

(*c*) the expiry date may remain unchanged provided one or more annual or intermediate surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by Regulation 5 are not exceeded.

(9) An IAPP Certificate issued under Regulation 6 or 7 shall cease to be valid in any of the following cases:

(*a*) if the relevant surveys are not completed within the periods specified under Regulation 5(1);

(*b*) if the certificate is not endorsed in accordance with subparagraph (*c*) or (*d*) of Regulation 5(1);

(*c*) if the ship transfers to the flag of another state.

Port State control on operational requirements

10. (1) A ship that is registered in another state that is a Party may, when it is in a port within the jurisdiction of the State, be inspected by an inspector if he or she has clear grounds for believing that the master or crew are not familiar with essential shipboard procedures relating to the prevention of air pollution from ships.

(2) If, consequent on an inspection of a ship by an inspector, the inspector confirms that the master or crew are not familiar with the procedures referred to in that paragraph, the Minister shall take such steps (which he or she is hereby empowered to take) as will ensure that the ship shall not sail from the port until such time as the master or crew or, as the case may be, both the master and crew have become familiar with those procedures.

(3) So much of the procedures specified in Article 5 of the MARPOL Convention as are appropriate shall apply, with any necessary modifications, for the purposes of this Regulation.

(4) Nothing in this Regulation shall operate to derogate from the powers and duties of the Minister or any other person under the Act or any Regulations made thereunder.

Detection of violations and enforcement

11. (1) A ship to which these Regulations apply may, in any port or offshore terminal of the State, be subject to inspection by an inspector for the purpose of verifying whether the ship has emitted any of the substances covered by these Regulations in violation of the provision of these Regulations. If an inspection indicates a violation of these Regulations, a report shall be forwarded to the Minister for any appropriate action. If it is practicable to do so, the master of the ship shall be notified of the alleged violation.

(2) Proceedings shall be taken in accordance with the law as soon as possible, if the Minister is satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation.

PART 3 Requirements for Control of Emissions from Ships

Ozone-depleting substances

12. (1) Subject to the provisions of section 11 of the Act, any deliberate emissions of ozone-depleting substances shall be prohibited. Deliberate emissions include emissions occurring in the course of maintaining, servicing, repairing or disposing of systems or equipment, except that deliberate emissions do not include minimal releases associated with the recapture or recycling of an ozone-depleting substance.

(2) The substances referred to in this Regulation, and equipment containing such substances, shall be delivered to appropriate reception facilities when removed from ships.

Nitrogen oxides (NO X)

13. (1) (*a*) This Regulation shall apply to the following:

(i) each diesel engine with a power output of more than 130 kW which is installed on a ship constructed on or after 1 January 2000;

(ii) each diesel engine with a power output of more than 130 kW which undergoes a major conversion on or after 1 January 2000.

(*b*) This Regulation does not apply to the following:

(i) emergency diesel engines, engines installed in lifeboats and any device or equipment intended to be used solely in case of emergency;

(ii) engines installed on ships solely engaged in voyages within waters subject to the sovereignty or jurisdiction of the State; but only if such engines are subject to an alternative NO X control measure established by the Minister.

(*c*) Notwithstanding subparagraph (*a*), the Minister may allow exclusion from the application of this Regulation to any diesel engine which is installed on a ship constructed, or on an engine which has undergone a major conversion, before 19 May 2005; but only if the ship is solely engaged in voyages or offshore terminals within the State.

(2) (*a*) For the purpose of this Regulation, "major conversion" means a modification of an engine where—

(i) the engine is replaced by a new engine built on or after 1 January 2000, or

(ii) any substantial modification, as defined in the NO X Technical Code, is made to the engine, or

(iii) the maximum continuous rating of the engine is increased by more than 10 per cent.

(*b*) the NO X emission resulting from modifications referred to in subparagraph (*a*) shall be documented in accordance with the NO X Technical Code for approval by the Minister.

(3) (*a*) Subject to the provision of section 11 of the Act, the operation of each diesel engine to which this Regulation applies is prohibited, except when the emission of nitrogen oxides (calculated as the total weighted emission of NO 2) from the engine is within the following limits:

(i) 17.0g/kW h when *n* is less than 130 rpm;

(ii) 45.0 x *n* (-0.2) g/kW h when *n* is 130 or more but less than 2000 rpm;

(iii) 9.8 g/kW h when *n* is 2000 rpm or more

where *n* = rated engine speed (crankshaft revolutions per minute).

When using fuel composed of blends from hydrocarbons derived from petroleum refining, test procedure and measurement methods shall be in accordance with the NO X Technical Code, taking into consideration the test cycles and weighing factors outlined in Schedule 2.

(*b*) Notwithstanding subparagraph (*a*), the operation of a diesel engine is permitted when—

(i) an exhaust gas cleaning system, approved by the Minister in accordance with the NO X Technical Code, is applied to the engine to reduce onboard NO X emissions at least to the limits specified in subparagraph (*a*), or

(ii) any other equivalent method, approved by the Minister taking into account relevant guidelines to be developed by the Organization, is applied to reduce onboard NO X emissions at least to the limit specified in subparagraph (*a*).

Sulphur oxides (SO X)

14. (1) As a general requirement, the sulphur content of any fuel oil used on board ships shall not exceed 4.5% m/m.

(2) For the purpose of this Regulation "SO X emission control areas" include—

(*a*) the Baltic Sea area as defined in regulation 1.11.2 of Annex I, the North Sea area as defined in regulation 5(1)(*f*) of Annex V of the MARPOL Convention, and

(*b*) any other sea area, including port areas, designated by the Organization in accordance with criteria and procedures for designation of SO X emission control areas with respect to the prevention of air pollution from ships contained in Schedule 3.

(3) While ships are within SO X emission control areas, at least one of the following conditions shall be fulfilled:

(*a*) the sulphur content of fuel oil used on board ships in a SO X emission control area does not exceed 1.5% m/m;

(*b*) an exhaust gas cleaning system, approved by the Minister taking into account guidelines to be developed by the Organization, is applied to reduce the total emission of sulphur oxides from ships, including both auxiliary and main propulsion engines, to 6.0g SO X /kW h or less calculated as the total weight of sulphur dioxide emission. Waste streams from the use of such equipment shall not be discharged into enclosed ports, harbours and estuaries unless it can be thoroughly documented by the ship that such waste streams have no adverse impact on the ecosystems of such enclosed ports, harbours and estuaries;

(*c*) any other technological method that is verifiable and enforceable to limit SO X emissions to a level equivalent to that described in subparagraph (*b*) is applied; and any such method shall be approved by the Minister taking into account guidelines to be developed by the Organization.

(4) The sulphur content of fuel oil referred to in paragraph (1) and paragraph (4)(*a*) shall be documented by the supplier as required by Regulation 18.

(5) Those ships using separate fuel oils to comply with paragraph (4)(*a*) shall allow sufficient time for the fuel oil service system to be fully flushed of all fuels exceeding 1.5% m/m sulphur content prior to entry into a SO X emission control area. The volume of low sulphur fuel oils (less than or equal to 1.5% sulphur content) in each tank as well as the date, time, and position of the ship when any fuel-changeover operation is completed, shall be recorded in such log-book as prescribed by the Minister.

(6) During the first 12 months immediately following an amendment to the Protocol of 1997 designating a specific SO X emission control area under paragraph (2)(*b*), ships entering a SO X emission control area referred to in paragraph (2)(*a*) are exempted from the requirements in paragraph (3) and (5) and from the requirements of paragraph (4) in so far as they relate to paragraph (3)(*a*).

Volatile organic compounds

15. (1) Emissions of volatile organic compounds (VOCs) from tankers in ports or terminals of the State shall be regulated in accordance with the provisions of this Regulation.

(2) Should the Minister designate ports or terminals in which VOCs emissions are to be regulated, he or she shall cause a notification to be submitted to the Organization. This notification shall include information on the size of tankers to be controlled, on cargoes requiring vapour emission control systems, and the effective date of such control. The notification shall be submitted at least 6 months before the effective date.

(3) If the Minister designates ports or terminals at which VOCs emissions from tankers are to be regulated, the competent authority shall ensure that vapour emission control systems, approved by the Minister taking into account the safety standards developed by the Organization (by reference to MSC/Circ.585, standards for vapour emission control systems), are provided in ports and terminals designated, and are operated safely and in a manner so as to avoid undue delay to the ship.

(4) All tankers which are subject to vapour emission control in accordance with the provisions of paragraph (2) of this Regulation shall be provided with a vapour collection system approved by the Minister taking into account the safety standards developed by the Organization, and shall use such system during the loading of such cargoes. Terminals which have installed vapour emission control systems in accordance with this regulation may accept existing tankers which are not fitted with vapour collection systems for a period of 3 years after the effective date identified in paragraph (2).

(5) This Regulation shall only apply to gas carriers when the type of loading and containment

systems allow safe retention of non-methane VOCs on board, or their safe return ashore.

Shipboard incineration

16. (1) Except as provided in paragraph (5), shipboard incineration shall be allowed only in a shipboard incinerator.

(2) (*a*) Except as provided in subparagraph (*b*) of this paragraph, each incinerator installed on board a ship on or after 1 January 2000 shall meet the requirements contained in Schedule 4. Each incinerator shall be approved by the Minister taking into account the standard specifications for shipboard incinerators developed by the Organization (by reference to resolutions MEPC.76(40) and MEPC.93(45)).

(*b*) The Minister may allow exclusion from the application of subparagraph (*a*) to any incinerator which is installed on board a ship before the date of entry into force of the Protocol of 1997; but only if the ship is solely engaged in voyages within waters subject to the sovereignty or jurisdiction of the State.

(3) Nothing in this Regulation affects the prohibition in, or other requirements of, the Dumping at Sea Act 1996 .

(4) Shipboard incineration of the following substances shall be prohibited:

(*a*) Annex I, II and III cargo residues of the MARPOL Convention and related contaminated packing materials;

(*b*) polychlorinated biphenyls (PCBs);

(*c*) garbage, as defined in Annex V of the MARPOL Convention, containing more than traces of heavy metals;

(*d*) refined petroleum products containing halogen compounds.

(5) Shipboard incineration of sewage sludge and sludge oil generated during the normal operation of a ship may also take place in the main or auxiliary power plant or boilers, but in those cases, shall not take place inside ports, harbours and estuaries.

(6) Shipboard incineration of polyvinyl chlorides (PVCs) shall be prohibited, except in shipboard incinerators for which IMO Type Approval Certificates have been issued.

(7) All ships with incineration subject to this Regulation shall possess a manufacturer’s operation manual which shall specify how to operate the incinerator within the limits described in paragraph (2) of Schedule 4.

(8) Personnel responsible for operation of any incinerator shall be trained and capable of implementing the guidance provided in the manufacturer’s operating manual.

(9) Monitoring of combustion flue gas outlet temperature shall be required at all times and waste shall not be fed into a continuous-feed shipboard incinerator when the temperature is below the minimum allowed temperature of 850°C. For batch-loaded shipboard incinerators, the unit shall be designed so that the temperature in the combustion chamber shall reach 600°C within five minutes after start-up.

(10) Nothing in this Regulation precludes the development, installation and operation of alternative design shipboard thermal waste treatment devices that meet or exceed the requirements of this Regulation.

Reception facilities

17. (1) A harbour authority or person having control of a harbour shall provide—

(*a*) at repair ports, facilities for the reception, without causing undue delay to ships, of ozone-depleting substances and equipment containing such substances when removed from ships,

(*b*) at ports, terminals or repair ports, facilities for the reception, without causing undue delay to ships, of exhaust gas cleaning residues from an approved exhaust gas cleaning system when discharge into the marine environment of these residues is not permitted under Regulation 14, and

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

(2) The owner or master of a ship shall notify the Minister for transmission to the Members of the Organization of all cases where the facilities provided under this Regulation are unavailable or alleged to be inadequate.

Fuel oil quality

18. (1) Fuel oil for combustion purposes delivered to and used on board ships to which these Regulations apply shall meet the following requirements:

(*a*) except as provided in subparagraph (*b*)—

(i) the fuel oil shall 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;

(ii) the fuel oil shall be free from inorganic acid;

(iii) the fuel oil shall not include any added substance or chemical waste which—

(I) jeopardises the safety of ships or adversely affects the performance of the machinery, or

(II) is harmful to personnel, or

(III) contributes overall to additional air pollution;

(*b*) fuel oil for combustion purposes derived by methods other than petroleum refining shall not—

(i) exceed the sulphur content set forth in Regulation 14,

(ii) cause an engine to exceed the NO X emission limits set forth in Regulation 13(3)(*a*),

(iii) contain inorganic acid and

(I) jeopardise the safety of ships or adversely affect the performance of the machinery, or

(II) be harmful to personnel, or

(III) contribute overall to additional air pollution.

(2) This Regulation does not apply to coal in its solid form or nuclear fuels.

(3) For each ship subject to Regulations 5 and 6, details of fuel oil or combustion purposes delivered to and used on board shall be recorded by means of a bunker delivery note which shall contain at least the information specified in Schedule 5.

(4) The bunker delivery note shall be kept on board the ship in such a place as to be readily available for inspection at all reasonable times. It shall be retained for a period of three years after the fuel oil has been delivered on board.

(5) (*a*) An inspector may inspect the bunker delivery notes on board any ship to which these Regulations apply while the ship is in a port or offshore terminal of the State, may make a copy of each delivery note, and may require the master or person in charge of the ship to certify that each copy is a true copy of such bunker delivery note. The inspector may also verify the contents of each note through consultations with the port where the note was issued.

(*b*) The inspection of the bunker delivery notes and the taking of certified copies by an inspector under this paragraph shall be performed as expeditiously as possible without causing the ship to be unduly delayed.

(6) The bunker delivery note shall be accompanied by a representative sample of the fuel oil delivered taking into account guidelines developed by the Organization under Resolution MEPC.96(47). The sample is to be sealed and signed by the supplier’s representative and the master or officer in charge of the bunker operation on completion of bunkering operations and retained under the ship’s control until the fuel oil is substantially consumed, but in any case for a

period of not less than 12 months from the time of delivery.

(7) A person appointed an inspector by the Minister and to whom this Regulation relates shall ensure the following:

(*a*) a register of local suppliers of fuel oil is maintained;

(*b*) local suppliers provide the bunker delivery note and sample as required by this Regulation, certified by the fuel oil supplier that the fuel oil meets the requirements of Regulations 14 and 18;

(*c*) local suppliers retain a copy of the bunker delivery note for at least three years for inspection and verification by the port State as necessary;

(*d*) action is taken, as appropriate, against fuel oil suppliers that have been found to deliver fuel oil that does not comply with that stated on the bunker delivery note;

(*e*) the Minister is informed of any ship receiving fuel oil found to be non-compliant with the requirements of Regulation 14 or 18.

(8) In connection with port State inspections carried out in the State, the inspector shall—

(*a*) inform the Party or non-Party under whose jurisdiction a bunker delivery note was issued of cases of delivery of non-compliant fuel oil, giving all relevant information, and

(*b*) ensure that remedial action as appropriate is taken to bring non-compliant fuel oil discovered into compliance.

Requirements for platforms and drilling rigs

19. (1) Subject to the provisions of paragraphs (2) and (3), fixed and floating platforms and drilling rigs shall comply with the requirements of these Regulations.

(2) Emissions directly arising from the exploration, exploitation and associated offshore processing of seabed mineral resources are, consistent with Article 2(3)(*b*)(ii) of the MARPOL Convention, exempt from the provisions of these Regulations. Such emissions include the following:

(*a*) emissions resulting from the incineration of substances that are solely and directly the result of exploration, exploitation and associated offshore processing of seabed mineral resources, including but not limited to the flaring of hydrocarbons and the burning of cuttings, muds, and/or stimulation fluids during well completion and testing operations, and flaring arising from upset conditions;

(*b*) the release of gases and volatile compounds entrained in drilling fluids and cuttings;

(*c*) emissions associated solely and directly with the treatment, handling, or storage of

seabed minerals;

(*d*) emissions from diesel engines that are solely dedicated to the exploration, exploitation and associated offshore processing of seabed mineral resources.

(3) The requirements of Regulation 18 shall not apply to the use of hydrocarbons which are produced and subsequently used on site as fuel, when approved by the Minister.

Regulation 8.

SCHEDULE 1 *Form of Certificate*

INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

Issued under the provisions of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 related thereto, and as amended by resolution MEPC.132(53), (hereinafter referred to as "the Convention") under the authority of the Government of Ireland by the Minister for Transport.

Name of Ship	Distinctive number or letters	IMO number [1]	Port of Registry	Gross tonnage

1 In accordance with IMO ship identification number scheme adopted by the Organization by resolution A.600(15).

Type of ship: tanker

ships other than a tanker

THIS IS TO CERTIFY:

1. That the ship has been surveyed in accordance with regulation 5 of Annex VI of the Convention; and

2. That the survey shows that the equipment, systems, fittings, arrangements and materials fully comply with the applicable requirements of Annex VI of the Convention.

Completion date of the survey on which this certificate is based: dd/mm/yyyy

This certificate is valid until ..... [2] subject to surveys in accordance with regulation 5 of Annex VI of the Convention.

2 Insert the date of expiry as specified by the Minister in accordance with regulation 9(1) of Annex VI of the Convention. The day and the month of this date correspond to the anniversary date as defined in regulation 2(14) of Annex VI of the Convention, unless amended in acordance with regulation 9(8) of Annex VI of the Convention

Issued at

(Place of issue of certificate)

.....

(Date of issue)

(Signature of authorised officialissuing the certificate)

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

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

Annual survey:

Signed
.....
(Signature of authorised official)

Place
.....

Date
.....

(Seal or stamp of the authority, as appropriate)

Annual/Intermediate * survey: Signed
.....
(Signature of authorised official)

Place
.....

Date
.....

*Delete as appropriate

(Seal or stamp of the authority, as appropriate)

Annual/Intermediate * survey: Signed
.....
(Signature of authorised official)

Place
.....

Date
.....

(Seal or stamp of the authority, as appropriate)

Annual survey: Signed
.....
(Signature of authorised official)

Place
.....

Date
.....

(Seal or stamp of the authority, as appropriate)

ANNUAL/INTERMEDIATE SURVEY IN ACCORDANCE WITH REGULATION 9(8)(*c*)

THIS IS TO CERTIFY that, at an annual/intermediate * survey in accordance with regulation 9(8)(*c*) of Annex VI of the Convention, the ship was found to comply with the relevant provisions of the Convention:

* Delete as appropriate

Signed .....

(Signature of authorised official)

Place .....

Date .....

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID FOR LESS THAN 5 YEARS WHERE REGULATION 9(3) APPLIES

The ship complies with the relevant provisions of the Convention, and this certificate shall, in accordance with regulation 9(3) of Annex VI of the Convention, be accepted as valid until .....

Signed .....

(Signature of authorised official)

Place .....

Date .....

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN COMPLETED AND REGULATION 9(4) APPLIES

The ship complies with the relevant provisions of the Convention, and this certificate shall, in accordance with regulation 9(4) of Annex VI of the Convention, be accepted as valid until .....

Signed .....

(Signature of authorised official)

Place .....

Date .....

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE UNTIL REACHING THE PORT OF SURVEY OR FOR A PERIOD OF GRACE WHERE REGULATION 9(5) OR 9(6) APPLIES

This certificate shall, in accordance with regulation 9(5) or 9(6) * of Annex VI of the Convention, be accepted as valid until

* Delete as appropriate

Signed .....

(Signature of authorised official)

Place .....

Date .....

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE WHERE REGULATION 9(8) APPLIES

In accordance with regulation 9(8) of Annex VI of the Convention, the new anniversary date is

Signed .....

(Signature of authorised official)

Place .....

Date .....

(Seal or stamp of the authority, as appropriate)

In accordance with regulation 9(8) of Annex VI of the Convention, the new anniversary date is

Signed .....

(Signature of authorised official)

Place .....

Date .....

(Seal or stamp of the authority, as appropriate)

SUPPLEMENT TO

INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

(IAPP CERTIFICATE)

RECORD OF CONSTRUCTION AND EQUIPMENT

In respect of the provisions of Annex VI of the International Convention for the Prevention of

Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as "the Convention").

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

1. Particulars of ship

1.1 Name of ship

1.2 Distinctive number or letters

1.3 IMO number

1.4 Port of registry

1.5 Gross tonnage

1.6 Date on which keel was laid or ship was at a similar stage of construction

1.7 Date of commencement of major engine conversion (if applicable) (regulation 13)

2. Control of emissions from ships

2.1 *Ozone-depleting substances (regulation 12)*

2.1.1 The following fire-extinguishing systems and equipment containing halons may continue in service .....

System equipment **Location on board**

2.1.2 The following systems and equipment containing CFCs may continue in service: .....

System equipment **Location on board**

2.2 *Nitrogen oxides (NO X) (regulation 13)*

2.2.1 The following diesel engines with power output greater than 130 kW, and installed on a ship constructed on or after 1 January 2000, comply with the emission standards of regulation 13(3)(*a*) in accordance with the NO X Technical Code:.....

Manufacturer and model	**Serial number**	**Use**	**Power output (kW)**	**Rated speed (rpm)**

2.2.2 The following diesel engines with power output greater than 130 kW, and which underwent major conversion per regulation 13(2) on or after 1 January 2000, comply with the emission standards of regulation 13(3)(*a*) in accordance with the NO X Technical Code: .....

Manufacturer and model	**Serial number**	**Use**	**Power output (kW)**	**Rated speed (rpm)**

2.2.3 The following diesel engines with a power output greater than 130 kW and installed on a ship constructed on or after 1 January 2000, or with a power output greater than 130 kW and which underwent major conversion per regulation 13(2) on or after 1 January 2000, are fitted with an exhaust gas cleaning system or other equivalent methods in accordance with regulation 13(3), and the NO X Technical Code: .....

Manufacturer and model	**Serial number**	**Use**	**Power output (kW)**	**Rated speed (rpm)**

2.2.4 The following diesel engines from 2.2.1, 2.2.2 and 2.2.3 above are fitted with NO X emission monitoring and recording devices in accordance with the NO X Technical Code: .....

Manufacturer and model	**Serial number**	**Use**	**Power output (kW)**	**Rated speed (rpm)**

2.3 *Sulphur oxides (SO X) (regulation 14)*

2.3.1 When the ship operates within an SO X emission control area specified in regulation 14(3), the ship uses:

.1 fuel oil with a sulphur content that does not exceed 1.5% m/m as documented by bunker delivery notes: or .....

.2 an approved exhaust gas cleaning system to reduce SO X emission below 6.0 g SO X /kW h; or .....

.3 other approved technology to reduce SO X emission below 6.0 g SO X /kW h; or .....

2.4 *Volatile organic compounds (VOCs) (regulation 15)*

2.4.1 The tanker has a vapour collection system installed and approved in accordance with MSC/Circ.585 .....

2.5 *The ship has an incinerator:*

.1 which complies with resolution MEPC.76(40) as amended

.2 installed before 1 January 2000 which does not comply with resolution MEPC.76(4) as amended

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

Issued at

(Place of issue of the Record)

....

Date of issue *(Signature of duly authorised official Issuing the Record)*

(Seal or stamp of the authority, as appropriate)

Regulation 13.

SCHEDULE 2 TEST CYCLES AND WEIGHTING FACTORS

The following test cycles and weighting factors should be applied for verification of compliance of marine diesel engines with the NO X limits in accordance with Regulation 13 of these Regulations using the test procedure and calculation method as specified in the NO X Technical Code.

.1 For constant-speed marine engines for ship main propulsion, including diesel-electric drive, test cycle E2 should be applied.

.2 For variable-pitch propeller sets test cycle E2 should be applied.

.3 For propeller-law-operated main and propeller-law-operated auxiliary engines the test cycle E3 should be applied.

.4 For constant-speed auxiliary engines test cycle D2 should be applied.

.5 For variable-speed, variable-load auxiliary engines, not included above, test cycle C1 should be applied.

Test cycle for *constant-speed main propulsion* application

(including diesel-electric drive or variable-pitch propeller installations)

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

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

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

factor

Test cycle for *constant-speed auxiliary engine* application

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

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

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

Regulation 14.

SCHEDULE 3 CRITERIA AND PROCEDURES FOR DESIGNATION OF SO X EMISSION CONTROL AREAS

1 *Objectives*

1.1 The purpose of this schedule is to provide the criteria and procedures for the designation of SO X emission control areas. The objective of SO X emission control areas is

to prevent, reduce, and control air pollution from SO X emissions from ships and their attendant adverse impacts on land and sea areas.

1.2 An SO X emission control area should be considered for adoption by the Organization if supported by a demonstrated need to prevent, reduce, and control air pollution from SO X emissions from ships.

2 *Proposal criteria for designation of an SO X emission control area*

2.1 A proposal to the Organization for designation of an SO X emission control area may be submitted only by Contracting States to the Protocol of 1997. Where two or more Contracting States have a common interest in a particular area, they should formulate a co-ordinated proposal.

2.2 The proposal shall include:

.1 a clear delineation of the proposed area of application of controls on SO X emissions from ships, along with a reference chart on which the area is marked;

.2 a description of the land and sea areas at risk from the impacts of ship SO X emissions;

.3 an assessment that SO X emissions from ships operating in the proposed area of application of the SO X emission controls are contributing to air pollution from SO X , including SO X deposition, and their attendant adverse impacts on the land and sea areas under consideration. Such assessment shall include a description of the impacts of SO X emissions on terrestrial and aquatic ecosystems, areas of natural productivity, critical habitats, water quality, human health, and areas of cultural and scientific significance, if applicable. The sources of relevant data including methodologies used, shall be identified;

.4 relevant information pertaining to the meteorological conditions in the proposed area of application of the SO X emission controls and the land and sea areas at risk, in particular prevailing wind patterns, or to topographical, geological, oceanographic, morphological, or other conditions that may lead to an increased probability of higher localised air pollution or levels of acidification;

.5 the nature of the ship traffic in the proposed SO X emission control area, including the patterns and density of such traffic; and

.6 a description of the control measures taken by the proposing Contracting State or Contracting States addressing land-based sources of SO X emissions affecting the area at risk that are in place and operating concurrent with the consideration of measures to be adopted in relation to provisions of regulation 14 of Annex VI of the present Convention.

2.3 The geographical limits of an SO X emission control area will be based on the relevant criteria outlined above, including SO X emission and deposition from ships navigating in the proposed area, traffic patterns and density, and wind conditions.

2.4 A proposal to designate a given area as an SO X emission control area should be submitted to the Organization in accordance with the rules and procedures established by the Organization.

3 *Procedures for the assessment and adoption of SO X emission control areas by the Organization*

3.1 The Organization shall consider each proposal submitted to it by a Contracting State or Contracting States.

3.2 An SO X emission control areas shall be designated by means of an amendment to this Annex, considered, adopted and brought into force in accordance with Article 16 of the present Convention.

3.3 In assessing the proposal, the Organization shall take into account the criteria which are to be included in each proposal for adoption as set forth in section 2 above, and the relative costs of reducing sulphur depositions from ships when compared with land-based controls. The economic impacts on shipping engaged in international trade should also be taken into account.

4 *Operation of SO X emission control areas*

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

Regulation 16.

SCHEDULE 4 TYPE APPROVAL AND OPERATING LIMITS FOR SHIPBOARD INCINERATORS

(1) Shipboard incinerators described in Regulation 17(2) shall possess an IMO type approval certificate for each incinerator. In order to obtain such certificate, the incinerator shall be designed and built to an approved standard as described in Regulation 17(2). Each model shall be subject to a specified type approval test operation at the factory or an approved test facility, and under the responsibility of the Minister, using the following standard fuel/waste specification for the type approval test for determining whether the incinerator operates within the limits specified in paragraph (2) of this schedule:

Sludge oil consisting of:	75% Sludge oil from HFO;
	5% waste lubricating oil; and
	20% emulsified water.
Solid waste consisting of:	50% food waste;
	50% rubbish containing
	approx. 30% paper,

	" 40% cardboard,
	" 10% rags,
	" 20% plastic.
	The mixture will have up to 50% moisture and 7% incombustible solids.

(2) Incinerators described in Regulation 17(2) shall operate within the following limits:

O 2 in combustion chamber:	6-12%
CO in flue gas maximum	
average:	200 mg/MJ
Soot number maximum	Bacharach 3 or
average:	Ringelman 1 (20% opacity)
	(A higher soot number is acceptable only during very short periods such as starting up)
Unburned components in	maximum 10% by weight
ash residues:	
Combustion chamber flue gas	850-1200°C
outlet temperature range:	

Regulation 18(3).

SCHEDULE 5 INFORMATION TO BE INCLUDED IN THE BUNKER DELIVERY NOTE

Name and IMO number of receiving ship

Port

Date of commencement of delivery

Name, address, and telephone number of marine fuel oil supplier

Product name(s)

Quantity (metric tons)

Density at 15°C (kg/m 3) [1]

1 Fuel oil should be tested in accordance with ISO 3675

Sulphur content (% m/m) [2]

2 Fuel oil should be tested in accordance with ISO 8754

A declaration signed and certified by the fuel oil supplier's representative that the fuel oil supplied is in conformity with paragraph (1) or (4)(a) of Regulation 15 and Regulation 19(1) of these Regulations.

GIVEN under my Official Seal,

25 October 2007

NOEL DEMPSEY,

Minister for Transport.

EXPLANATORY NOTE.

(This note is not part of the Instrument and does not purport to be a legal interpretation.)

These Regulations give effect to Annex VI as added to the International Convention for the Prevention of Pollution from Ships (MARPOL Convention) by its Protocol adopted by the International Maritime Organization on 26 September 1997.

The Regulations, which apply to Irish ships everywhere and to other ships when they are in the inland waters and territorial seas of the State, control emissions from ships with a view to preventing air pollution.

Section 29 of the Sea Pollution Act 1991 provides for penalties for breaches of these Regulations.

1 In accordance with IMO ship identification number scheme adopted by the Organization by resolution A.600(15).

2 Insert the date of expiry as specified by the Minister in accordance with regulation 9(1) of Annex VI of the Convention. The day and the month of this date correspond to the anniversary date as defined in regulation 2(14) of Annex VI of the Convention, unless amended in acordance with regulation 9(8) of Annex VI of the Convention

*Delete as appropriate

* Delete as appropriate

* Delete as appropriate

1 Fuel oil should be tested in accordance with ISO 3675

2 Fuel oil should be tested in accordance with ISO 8754