



STATUTORY INSTRUMENTS.

S.I. No. 35 of 2013



SEA POLLUTION (PREVENTION OF AIR POLLUTION FROM SHIPS)
(AMENDMENT) REGULATIONS 2013

SEA POLLUTION (PREVENTION OF AIR POLLUTION FROM SHIPS)
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I, LEO VARADKAR, Minister for Transport, Tourism and Sport, 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) and the Maritime Transport, Safety and Security (Transfer of Departmental Administration and Ministerial Functions) Order 2005 (S.I. No. 842 of 2005) (as adapted by the Transport (Alteration of Name of Department and Title of Minister) Order 2011 (S.I. No. 141 of 2011)) and for the purpose of giving further effect to Annex VI to the MARPOL Convention, hereby make the following regulations:

1. (1) These Regulations may be cited as the Sea Pollution (Prevention of Air Pollution from Ships) (Amendment) Regulations 2013.

(2) These Regulations come into operation on the day after the date on which notice of their making is published in *Iris Oifigiúil*.

2. The purpose of these Regulations includes giving effect to Resolutions MEPC.202(62) and MEPC.203(62) adopted on 15 July 2011 by the Marine Environment Protection Committee of the International Maritime Organization, the text of which, for ease of reference, is set out in Schedule 1 and Schedule 2 respectively.

3. The Sea Pollution (Prevention of Air Pollution from Ships) Regulations 2010 (S.I. No. 313 of 2010) are amended—

(a) in Regulation 2(1)—

(i) in the definition of “IAPP Certificate” by deleting “International Air Pollution Certificate” and substituting “International Air Pollution Prevention Certificate”,

(ii) by inserting after the definition of “IAPP Certificate” the following:

“ ‘IEE Certificate’ means an International Energy Efficiency Certificate;”,

(iii) by substituting for the definition of “recognised organisation” the following:

“ ‘recognised organisation’ means an organisation authorised by the Minister under the European Communities (Ship

Notice of the making of this Statutory Instrument was published in “Iris Oifigiúil” of 8th February, 2013.

Inspection and Survey Organisations) Regulations 2011 (No. 275 of 2011) to carry out surveys or inspections;”, and

(iv) by substituting for the definition of “surveyor” the following:

“ ‘surveyor’ means a surveyor of ships or an inspector appointed under section 20 of the Act for the purposes of section 17;

‘tanker’, for the purposes of Regulation 14 and Part 3A, where the context permits, means an oil tanker which has the meaning given to it in Regulation 2 of the Sea Pollution (Prevention of Oil Pollution) Regulations 2007 (S.I. No. 788 of 2007) or a chemical tanker which has the meaning given to it in Regulation 2 of the Sea Pollution (Control of Pollution by Noxious Liquid Substances in Bulk) Regulations 2008 (S.I. No. 217 of 2008).”,

(b) by substituting for the heading of Regulation 7 the following:

“Issue and endorsement of IAPP Certificates.”,

(c) by inserting after Regulation 7 the following:

“Issue and endorsement of IEE Certificates.

7A. (1) An IEE Certificate for the ship shall be issued after a survey, in accordance with the provisions of regulation 5.4 of Annex VI, to any ship of 400 gross tonnage and above before that ship may engage in voyages to ports or offshore terminals under the jurisdiction of other Parties.

(2) An IEE Certificate shall be issued or endorsed, as appropriate, by a qualified person.

(3) An IEE Certificate shall not be issued to a ship which is entitled to fly the flag of a state which is not a Party.”,

(d) by substituting for Regulation 8 the following:

“Form of IAPP Certificate.

8. (1) The IAPP Certificate shall be in the form set out in Appendix I of Annex VI and shall be in at least one of the following languages:

(a) English;

(b) French;

(c) Spanish.

(2) Subject to paragraph (1), where the official language of the state whose flag the ship is entitled to fly, has been used in an IAPP Certificate, then that language shall prevail in case of a dispute or discrepancy.

Form of IEE Certificate.

8A. (1) The IEE Certificate shall be in the form set out in Appendix VIII of Annex VI and shall be in at least one of the following languages:

- (a) English;
- (b) French;
- (c) Spanish.

(2) Subject to paragraph (1), where the official language of the state whose flag the ship is entitled to fly, has been used in an IEE Certificate, then that language shall prevail in case of a dispute or discrepancy.”,

(e) by inserting after Regulation 9 the following:

“Duration and validity of IEE Certificate.

9A. (1) Subject to paragraph (2), an IEE Certificate shall be valid throughout the life of the ship.

(2) An IEE Certificate issued in accordance with the criteria specified in Annex VI shall cease to be valid in any of the following cases:

- (a) if the ship is withdrawn from service or if a new IEE Certificate is issued following major conversion of the ship;
- (b) upon transfer of the ship to the flag of another state.”,

(f) by substituting for paragraph (8) of Regulation 12 the following:

“(8) For the purposes of this Regulation, Emission Control Areas shall be:

- (a) the North American area, which means the area described by the coordinates provided in Appendix VII of Annex VI;
- (b) the United States Caribbean Sea area, which means the area described by the coordinates provided in Appendix VII of Annex VI;
- (c) any other sea area, including any port area, designated by the Organization in accordance with the criteria and procedures set forth in Appendix III of Annex VI.”,

(g) by substituting for paragraph (9)(c) of Regulation 12 the following:

“(c) With regard to a marine diesel engine with a power output of more than 5,000 kW and a per cylinder displacement at or above 90 litres installed on a ship constructed on or after 1 January 1990 but prior to 1 January 2000, the IAPP Certificate shall, for a marine diesel engine to which paragraph (9)(a) applies, indicate that either an approved method has been applied pursuant to paragraph (9)(a)(i) or the engine has been certified pursuant to paragraph (9)(a)(ii) or that an approved method does not yet exist or is not yet commercially available as described in paragraph (9)(b).”.

(h) by substituting for paragraph (2) of Regulation 13 the following:

“(2) For the purpose of this Regulation, Emission Control Areas shall include the following:

- (a) the Baltic Sea area as defined in regulation 1.11.2 of Annex I of the MARPOL Convention and the North Sea area as defined in regulation 1.12.6 of Annex V of the MARPOL Convention;
- (b) the North American area as described by the coordinates provided in Appendix VII of Annex VI;
- (c) the United States Caribbean Sea area as described by the coordinates provided in Appendix VII of Annex VI;
- (d) any other sea area, including any port area, designated by the Organization in accordance with the criteria and procedures set forth in Appendix III of Annex VI.”.

(i) in paragraph (3) of Regulation 13 by—

- (i) substituting “2010;” for “2010; and” in subparagraph (b),
- (ii) substituting “2015; and” for “2015.” in subparagraph (c), and
- (iii) by inserting after subparagraph (c) the following:

“(d) prior to 1 January 2020, the sulphur content of fuel oil referred to in this paragraph shall not apply to ships operating in the North American area or the United States Caribbean Sea area, defined in paragraph (2), built on or before 1 August 2011 that are powered by propulsion boilers that were not originally designed for continued operation on marine distillate fuel or natural gas.”.

(j) by substituting for paragraph (6) of Regulation 13 the following:

“(6) Subject to paragraph (7), during the first 12 months immediately following entry into force of an amendment designating a specific

Emission Control Area under paragraph (2), ships operating in that Emission Control Area are exempt from the requirements in paragraphs (3) and (5), and from the requirements of paragraph (4) insofar as they relate to paragraph (3).

(7) The 12 month exemption referred to in paragraph (6) will apply for the North American Emission Control Area until 1 August 2012 and will apply for the United States Caribbean Sea Emission Control Area until 1 January 2014.”,

(k) by inserting after Regulation 17 the following:

“PART 3A

REGULATIONS ON ENERGY EFFICIENCY FOR SHIPS

Interpretation (Part 3A).

17A. In this Part—

‘attained EEDI’ is the EEDI value achieved by an individual ship in accordance with Regulation 17C;

‘bulk carrier’ means a ship which is intended primarily to carry dry cargo in bulk, including such types as ore carriers as defined in SOLAS chapter XII, regulation 1, but excluding combination carriers;

‘container ship’ means a ship designed exclusively for the carriage of containers in holds and on deck;

‘combination carrier’ means a ship designed to load 100% deadweight with both liquid and dry cargo in bulk;

‘EEDI’ means Energy Efficiency Design Index;

‘existing ship’ means a ship which is not a new ship;

‘gas carrier’ means a cargo ship constructed or adapted and used for the carriage in bulk of any liquefied gas;

‘general cargo ship’ means a ship with a multi-deck or single deck hull designed primarily for the carriage of general cargo but excludes specialized dry cargo ships, which are not included in the calculation of reference lines for general cargo ships, namely livestock carriers, barge carriers, heavy load carriers, yacht carriers or nuclear fuel carriers;

‘major conversion’, in relation to a conversion of a ship, means a conversion—

- (a) which substantially alters the dimensions, carrying capacity or engine power of the ship,

- (b) which changes the type of the ship,
- (c) the intent of which in the opinion of the Minister is substantially to prolong the life of the ship,
- (d) which otherwise so alters the ship that, if it were a new ship, it would become subject to relevant provisions of the MARPOL Convention not applicable to it as an existing ship, or
- (e) which substantially alters the energy efficiency of the ship and includes any modifications that could cause the ship to exceed the applicable required EEDI as set out in Regulation 17D;

‘new ship’ means a ship—

- (a) for which the building contract is placed on or after 1 January 2013,
- (b) in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2013, or
- (c) the delivery of which is on or after 1 July 2015;

‘passenger ship’ means a ship which carries more than 12 passengers;

‘refrigerated cargo carrier’ means a ship designed exclusively for the carriage of refrigerated cargoes in holds;

‘required EEDI’ is the maximum value of attained EEDI that is allowed by Regulation 17D for the specific ship type and size;

‘ro-ro cargo ship’ means a ship designed for the carriage of roll-on-roll-off cargo transportation units;

‘ro-ro cargo ship (vehicle carrier)’ means a multi-deck roll-on-roll-off cargo ship designed for the carriage of empty cars and trucks;

‘ro-ro passenger ship’ means a passenger ship with roll-on-roll-off cargo spaces;

‘SEEMP’ means Ship Energy Efficiency Management Plan;

‘SMS’ means a safety management system within the meaning of Article 1.4 of the International Management Code for the Safe Operation of Ships and for Pollution Prevention adopted by the Assembly of the Organization on 4 November 1993 under Resolution A.741(18), as amended.

Application.

17B. (1) This Part applies to all ships of 400 gross tonnage and above.

(2) The provisions of this Part shall not apply to ships registered in the State solely engaged in voyages within the territorial seas of the State.

(3) Regulations 17C and 17D shall not apply to ships which have diesel-electric propulsion, turbine propulsion or hybrid propulsion systems.

(4) Notwithstanding the provisions of paragraph (1), the Minister may waive the requirement for a ship of 400 gross tonnage and above from complying with Regulations 17C and 17D.

(5) Paragraph (4) shall not apply to ships of 400 gross tonnage and above for which —

- (a) the building contract is placed on or after 1 January 2017,
- (b) in the absence of a building contract, the keel is laid or is at a similar stage of construction on or after 1 July 2017,
- (c) the delivery is on or after 1 July 2019, or
- (d) in cases of a major conversion of a new or existing ship, on or after 1 January 2017, and in which regulation 5.4.2 and regulation 5.4.3 of Chapter II of Annex VI apply.

Attained EEDI.

17C. (1) The attained EEDI shall be calculated for—

- (a) each new ship,
- (b) each new ship which has undergone a major conversion, or
- (c) each new or existing ship which has undergone a major conversion, that is so extensive that the ship is regarded by the Minister as a newly constructed ship,

which falls into one or more of the following categories specified in regulation 2.25 to regulation 2.35 of Annex VI:

- (i) bulk carrier;
- (ii) combination carrier;
- (iii) container ship;
- (iv) gas carrier;

- (v) general cargo ship;
- (vi) passenger ship;
- (vii) refrigerated cargo carrier;
- (viii) ro-ro cargo ship (vehicle carrier);
- (ix) ro-ro cargo ship;
- (x) ro-ro passenger ship;
- (xi) tanker.

(2) The attained EEDI shall be specific to each ship and shall indicate the estimated performance of the ship in terms of energy efficiency and be accompanied by the EEDI technical file that contains the information necessary for the calculation of the attained EEDI and that shows the process of calculation. The attained EEDI shall be verified, based on the EEDI technical file, by a qualified person.

(3) The attained EEDI shall be calculated taking into account the Guidelines on the method of calculation of the Energy Efficiency Design Index for new ships, as may be amended from time to time, developed by the Organization.

Required EEDI.

17D. (1) For each—

- (a) new ship,
- (b) new ship which has undergone a major conversion, or
- (c) new or existing ship which has undergone a major conversion that is so extensive that the ship is regarded by the Minister as a newly constructed ship,

which falls into one or more of the following categories specified in regulation 2.25 to regulation 2.31 of Annex VI:

- (i) bulk carrier;
- (ii) gas carrier;
- (iii) tanker;
- (iv) container ship;
- (v) general cargo ship;
- (vi) refrigerated cargo carrier;

(vii) combination carrier,

and to which this Part is applicable, the attained EEDI shall be as follows:

$$\text{Attained EEDI} \leq \text{Required EEDI} = (1-X/100) \times \text{Reference line value}$$

where X is the reduction factor specified in Table 1 for the required EEDI compared to the EEDI Reference line.

(2) For each new and existing ship that has undergone a major conversion which is so extensive that the ship is regarded by the Minister as a newly constructed ship, the attained EEDI shall be calculated and meet the requirement of paragraph (1) with the reduction factor applicable corresponding to the ship type and size of the converted ship at the date of the contract of the conversion, or in the absence of a contract, the commencement date of the conversion.

TABLE 1

Reduction factors (in percentage) for the EEDI relative to the EEDI Reference line

Ship Type	Size	Phase 0	Phase 1	Phase 2	Phase 3
		1 Jan 2013 – 31 Dec 2014	1 Jan 2015 – 31 Dec 2019	1 Jan 2020 – 31 Dec 2024	1 Jan 2025 and onwards
Bulk carrier	20,000 DWT and above	0	10	20	30
	10,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*
Gas carrier	10,000 DWT and above	0	10	20	30
	2,000 – 10,000 DWT	n/a	0-10*	0-20*	0-30*
Tanker	20,000 DWT and above	0	10	20	30
	4,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*
Container ship	15,000 DWT and above	0	10	20	30
	10,000 – 15,000 DWT	n/a	0-10*	0-20*	0-30*
General Cargo ships	15,000 DWT and above	0	10	15	30
	3,000 – 15,000 DWT	n/a	0-10*	0-15*	0-30*
Refrigerated cargo carrier	5,000 DWT and above	0	10	15	30
	3,000 – 5,000 DWT	n/a	0-10*	0-15*	0-30*

Ship Type	Size	Phase 0	Phase 1	Phase 2	Phase 3
		1 Jan 2013 — 31 Dec 2014	1 Jan 2015 — 31 Dec 2019	1 Jan 2020 — 31 Dec 2024	1 Jan 2025 and onwards
Combination carrier	20,000 DWT and above	0	10	20	30
	4,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*

*Reduction factor to be linearly interpolated between the two values dependent upon vessel size. The lower value of the reduction factor is to be applied to the smaller ship size.

n/a means that no required EEDI applies.

(3) The Reference line values shall be calculated as follows:

$$\text{Reference line value} = a \times b^{-c}$$

where a, b and c are the parameters given in Table 2.

TABLE 2

Parameters for determination of reference values for the different ship types

Ship type defined in Regulation 17A	a	b	c
2.25 Bulk carrier	961.79	DWT of the ship	0.477
2.26 Gas carrier	1120.00	DWT of the ship	0.456
2.27 Tanker	1218.80	DWT of the ship	0.488
2.28 Container ship	174.22	DWT of the ship	0.201
2.29 General cargo ship	107.48	DWT of the ship	0.216
2.30 Refrigerated cargo carrier	227.01	DWT of the ship	0.244
2.31 Combination carrier	1219.00	DWT of the ship	0.488

(4) Where the design of a ship allows it to fall into more than one of the above ship type definitions, the required EEDI for the ship shall be the most stringent (the lowest) required EEDI.

(5) For each ship to which this Regulation applies, the installed propulsion power shall not be less than the propulsion power needed to maintain the manoeuvrability of the ship under adverse conditions as defined in the guidelines developed by the Organization.

(6) Notice is given that the Organization has undertaken, at the beginning of Phase 1 and at the midpoint of Phase 2, to review the status of technological developments and, where necessary, amend the time periods, the EEDI reference line parameters for relevant ship types and reduction rates set out in this Regulation.

SEEMP

17E. (1) Each ship shall keep on board a ship specific SEEMP which may form part of the ship's SMS.

(2) The SEEMP shall be developed taking into account guidelines adopted by the Organization.”,

(l) by substituting for Regulation 5 of Annex VI, as set out in the Schedule, the following:

“Regulation 5 *Surveys*

1 Every ship of 400 gross tonnage and above and every fixed and floating drilling rig and other platforms shall, to ensure compliance with chapter 3, be subject to the following surveys:

.1 An initial survey before the ship is put into service or before the certificate required under regulation 6 of this Annex is issued for the first time. This survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of chapter 3;

.2 A renewal survey at intervals specified by the Administration, but not exceeding 5 years, except where regulation 9.2, 9.5, 9.6 or 9.7 of this Annex is applicable. The renewal survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with applicable requirements of chapter 3;

.3 An intermediate survey within 3 months before or after the second anniversary date or 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 paragraph 1.4 of this regulation. The intermediate survey shall be such as to ensure that the equipment and arrangements fully comply with the applicable requirements of chapter 3 and are in good working order. Such intermediate surveys shall be endorsed on the IAPP Certificate issued under regulation 6 or 7 of this Annex;

.4 An annual survey 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 paragraph 1.1 of this regulation to ensure that

they have been maintained in accordance with paragraph 5 of this regulation and that they remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the IAPP Certificate issued under regulation 6 or 7 of this Annex; and

.5 An additional survey either general or partial, according to the circumstances, shall be made whenever any important repairs or renewals are made as prescribed in paragraph 5 of this regulation or after a repair resulting from investigations prescribed in paragraph 6 of this regulation. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of chapter 3.

2 In the case of ships of less than 400 gross tonnage, the Administration may establish appropriate measures in order to ensure that the applicable provisions of chapter 3 are complied with.

3 Surveys of ships as regards the enforcement of the provisions of this Annex shall be carried out by officers of the Administration and the following shall apply:

.1 The Administration may, however, entrust the surveys either to surveyors nominated for the purpose or to organizations recognized by it. Such surveyors and organizations shall comply with the guidelines adopted by the Organization and, in particular, the Guidelines for the Authorization of Organizations Acting on Behalf of the Administration, adopted by the Organization by resolution A.739(18), as amended by resolution MSC.208(81), and as may be amended by the Organization, and the Specifications on the Survey and Certification Functions of Recognized Organizations Acting on Behalf of the Administration, adopted by the Organization by resolution A.789(19), as may be amended by the Organization, and shall also have regard to the Survey Guidelines under the Harmonised System of Survey and Certification for the revised MARPOL Annex VI (resolution MEPC.180(59));

.2 The survey of marine diesel engines and equipment for compliance with regulation 13 of this Annex shall be conducted in accordance with the revised NO_x Technical Code 2008;

.3 When a nominated surveyor or recognized organization determines that the condition of the equipment does not correspond substantially with the particulars of the certificate, they shall ensure that corrective action is taken and shall in due course notify the Administration. If such corrective action is not

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

.4 In every case, the Administration concerned shall fully guarantee the completeness and efficiency of the survey and shall undertake to ensure the necessary arrangements to satisfy this obligation.

4 Ships to which chapter 4 applies shall also be subject to the surveys specified below, taking into account the Guidelines on Survey and Certification of the Energy Efficiency Design Index, as may be amended from time to time, adopted by the Organization and the following shall apply:

.1 An initial survey shall be undertaken before a new ship is put in service and before the International Energy Efficiency Certificate is issued. The survey shall verify that the ship's attained EEDI is in accordance with the requirements in chapter 4, and that the SEEMP required by regulation 22 is on board;

.2 A general or partial survey, according to the circumstances, shall be undertaken after a major conversion of a ship to which this regulation applies. The survey shall ensure that the attained EEDI is recalculated as necessary and meets the requirement of regulation 21, with the reduction factor applicable to the ship type and size of the converted ship in the phase corresponding to the date of contract or keel laying or delivery determined for the original ship in accordance with regulation 2.23;

.3 In cases where the major conversion of a new or existing ship is so extensive that the ship is regarded by the Administration as a newly constructed ship, the Administration shall determine the necessity of an initial survey on attained EEDI. Such a survey, if determined necessary, shall ensure that the attained EEDI is calculated and meets the requirement of regulation 21, with the reduction factor applicable corresponding to the ship type and size of the converted ship at the date of the contract of the conversion, or in the absence of a contract, the commencement date of the conversion. The survey shall also verify that the SEEMP required by regulation 22 is on board; and

.4 For existing ships, the verification of the requirement to have a SEEMP on board according to regulation 22 shall take place at the first intermediate or renewal survey identified in paragraph 1 of this regulation, whichever is the first, on or after 1 January 2013.

5 The equipment shall be maintained to conform with the provisions of this Annex and no changes shall be made in the equipment, systems, fittings, arrangements, or material covered by the survey, without the express approval of the Administration. The direct replacement of such equipment and fittings with equipment and fittings that conform with the provisions of this Annex is permitted.

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

- (m) by substituting for paragraph 2 of Regulation 6 of Annex VI, as set out in the Schedule, the following:

“2 A ship constructed before the date Annex VI enters into force for that particular ship’s Administration, shall be issued with an International Air Pollution Prevention Certificate in accordance with paragraph 1 of this regulation no later than the first scheduled dry-docking after the date of such entry into force, but in no case later than three years after this date.”,

- (n) by substituting for paragraph 1 of Regulation 7 of Annex VI, as set out in the Schedule, the following:

“1 A Party may, at the request of the Administration, cause a ship to be surveyed and, if satisfied that the applicable provisions of this Annex are complied with, shall issue or authorize the issuance of an International Air Pollution Prevention Certificate or an International Energy Efficiency Certificate to the ship, and where appropriate, endorse or authorize the endorsement of such certificates on the ship, in accordance with this Annex.”,

- (o) by inserting after paragraph 4 of Regulation 10 of Annex VI, as set out in the Schedule, the following:

“5 In relation to chapter 4, any port state inspection shall be limited to verifying, when appropriate, that there is a valid International Energy Efficiency Certificate on board, in accordance with article 5 of the Convention.”,

- (p) by substituting for Appendix VII of Annex VI, as set out in the Schedule, the following:

“Appendix VII

Emission Control Areas

(regulation 13.6 and regulation 14.3)

.1 The boundaries of emission control areas designated under regulations 13.6 and 14.3, other than the Baltic Sea and the North Sea areas, are set forth in this appendix.

.2 The North American area comprises the sea area set out at paragraph (c) of Regulation 2 of the Sea Pollution (Prevention of Air Pollution from Ships) (Amendment) Regulations 2011 (No. 383 of 2011).

.3 The United States Caribbean Sea area includes:

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

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

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

.”,

and

(q) by inserting after Appendix VII of Annex VI, as set out in the Schedule, the following:

“APPENDIX VIII

Form of International Energy Efficiency (IEE) Certificate

INTERNATIONAL ENERGY EFFICIENCY CERTIFICATE

Issued under the provisions of the Protocol of 1997, as amended by resolution MEPC.203(62), to amend the International Convention for the Prevention of Pollution by Ships, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as “the Convention”) under the authority of the Government of:

(Full designation of the Party)

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

Particulars of ship*

Name of ship

Distinctive number or letters.....

Port of registry

Gross tonnage

IMO Number**

* Alternatively, the particulars of the ship may be placed horizontally in boxes.

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

THIS IS TO CERTIFY:

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

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

Issued at
(Place of issue of certificate)

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

(Date of issue)

(Signature of duly authorized official
issuing the certificate)

(Seal or stamp of the authority, as appropriate)

**Supplement to the International Energy Efficiency Certificate
(IEE Certificate)**

**RECORD OF CONSTRUCTION RELATING TO ENERGY
EFFICIENCY**

Notes:

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

1 Particulars of ship

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

^{***} Insert ship type in accordance with definitions specified in regulation 2. Ships falling into more than one of the ship types defined in regulation 2 should be considered as being the ship type with the most stringent (the lowest) required EEDI. If ship does not fall into the ship types defined in regulation 2, insert “Ship other than any of the ship type defined in regulation 2”.

2 Propulsion system

- 2.1 Diesel propulsion
- 2.2 Diesel-electric propulsion
- 2.3 Turbine propulsion

2.4 Hybrid propulsion.....

2.5 Propulsion system other than any of the above

3 Attained Energy Efficiency Design Index (EEDI)

3.1 The Attained EEDI in accordance with regulation 20.1 is calculated based on the information contained in the EEDI technical file which also shows the process of calculating the Attained EEDI.

The Attained EEDI is:..... grams-CO₂/tonne-mile

3.2 The Attained EEDI is not calculated as:

3.2.1 the ship is exempt under regulation 20.1 as it is not a new ship as defined in regulation 2.23

3.2.2 the type of propulsion system is exempt in accordance with regulation 19.3

3.2.3 the requirement of regulation 20 is waived by the ship's Administration in accordance with regulation 19.4

3.2.4 the type of ship is exempt in accordance with regulation 20.1

4 Required EEDI

4.1 Required EEDI is:..... grams-CO₂/tonne-mile

4.2 The required EEDI is not applicable as:

4.2.1 the ship is exempt under regulation 21.1 as it is not a new ship as defined in regulation 2.23

4.2.2 the type of propulsion system is exempt in accordance with regulation 19.3

4.2.3 the requirement of regulation 21 is waived by the ship's Administration in accordance with regulation 19.4

4.2.4 the type of ship is exempt in accordance with regulation 21.1

4.2.5 the ship's capacity is below the minimum capacity threshold in Table 1 of regulation 21.2.....

5 Ship Energy Efficiency Management Plan

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

6 EEDI technical file

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

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

Issued at
(Place of issue of certificate)

(dd/mm/yyyy):.....
(Date of issue)

(Signature of duly authorized official
issuing the Record)

(Seal or stamp of the authority, as appropriate)”

..”

SCHEDULE 1

[contains amendments to the Annex 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 relating thereto, otherwise known as MARPOL Annex VI — *Regulations for the Prevention of Air Pollution from Ships* — arising from Resolution MEPC.202(62) adopted on 15 July 2011 by the Marine Environment Protection Committee of the International Maritime Organization, i.e., the Designation of the United States Caribbean Sea Emission Control Area and exemption of certain ships operating in the North American Emission Control Area and the United States Caribbean Sea Emission Control Area under regulations 13 and 14 and Appendix VII of MARPOL Annex VI]

**“AMENDMENTS TO REGULATIONS 13 AND 14 AND
APPENDIX VII OF THE REVISED MARPOL ANNEX VI**

1 Paragraph 6 of regulation 13 is replaced by the following:

“6 For the purpose of this regulation, emission control areas shall be:

- .1 the North American area, which means the area described by the coordinates provided in Appendix VII to this Annex;
- .2 the United States Caribbean Sea area, which means the area described by the coordinates provided in Appendix VII to this Annex; and
- .3 any other sea area, including any port area, designated by the Organization in accordance with the criteria and procedures set forth in Appendix III to this Annex.”

2 Paragraph 7.3 of regulation 13 is amended to read as follows:

“7.3 With regard to a marine diesel engine with a power output of more than 5,000 kW and a per cylinder displacement at or above 90 litres installed on a ship constructed on or after 1 January 1990 but prior to 1 January 2000, the International Air Pollution Prevention Certificate shall, for a marine diesel engine to which paragraph 7.1 of this regulation applies, indicate that either an approved method has been applied pursuant to paragraph 7.1.1 of this regulation or the engine has been certified pursuant to paragraph 7.1.2 of this regulation or that an approved method does not yet exist or is not yet commercially available as described in paragraph 7.2 of this regulation.”

3 Paragraph 3 of regulation 14 is replaced by the following:

“3 For the purpose of this regulation, emission control areas shall include:

- .1 the Baltic Sea area as defined in regulation 1.11.2 of Annex I and the North Sea area as defined in regulation 1.12.6 of Annex V;
- .2 the North American area as described by the coordinates provided in Appendix VII to this Annex;
- .3 the United States Caribbean Sea area as described by the coordinates provided in Appendix VII to this Annex; and
- .4 any other sea area, including any port area, designated by the Organization in accordance with the criteria and procedures set forth in Appendix III to this Annex.”

4 A new subparagraph 4 is added to paragraph 4 of regulation 14 to read as follows:

“4 Prior to 1 January 2020, the sulphur content of fuel oil referred to in paragraph 4 of this regulation shall not apply to ships operating in the North American area or the United States Caribbean Sea area defined in paragraph 3, built on or before 1 August 2011 that are powered by propulsion boilers that were not originally designed for continued operation on marine distillate fuel or natural gas.”

5 Paragraph 7 of regulation 14 is replaced by the following:

“7 During the first twelve months immediately following entry into force of an amendment designating a specific emission control area under paragraph 3 of this regulation, ships operating in that emission control area are exempt from the requirements in paragraphs 4 and 6 of this regulation and from the requirements of paragraph 5 of this regulation insofar as they relate to paragraph 4 of this regulation¹.”

¹The 12 month exemption provided by paragraph 7 will apply for the North American emission control area until 1 August 2012.

The 12 month exemption provided by paragraph 7 will apply for the United States Caribbean Sea emission control area until 1 January 2014.

6 Appendix VII is amended as follows:

“Appendix VII

Emission Control Areas

(regulation 13.6 and regulation 14.3)

- .1 The boundaries of emission control areas designated under regulations 13.6 and 14.3, other than the Baltic Sea and the North Sea areas, are set forth in this appendix.
- .2 (Existing text for the North American area)
- .3 The United States Caribbean Sea area includes:

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

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

POINT	LATITUDE	LONGITUDE
38	18° 3' 2" N.	64° 38' 3" W.
39	18° 2' 56" N.	64° 29' 35" W.
40	18° 2' 51" N.	64° 27' 2" W.
41	18° 2' 30" N.	64° 21' 8" W.
42	18° 2' 31" N.	64° 20' 8" W.
43	18° 2' 3" N.	64° 15' 57" W.
44	18° 0' 12" N.	64° 2' 29" W.
45	17° 59' 58" N.	64° 1' 4" W.
46	17° 58' 47" N.	63° 57' 1" W.
47	17° 57' 51" N.	63° 53' 54" W.
48	17° 56' 38" N.	63° 53' 21" W.
49	17° 39' 40" N.	63° 54' 53" W.
50	17° 37' 8" N.	63° 55' 10" W.
51	17° 30' 21" N.	63° 55' 56" W.
52	17° 11' 36" N.	63° 57' 57" W.
53	17° 4' 60" N.	63° 58' 41" W.
54	16° 59' 49" N.	63° 59' 18" W.
55	17° 18' 37" N.	67° 32' 14" W

”.”

SCHEDULE 2

[contains amendments to the Annex 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 relating thereto, otherwise known as MARPOL Annex VI — *Regulations for the Prevention of Air Pollution from Ships* — arising from Resolution MEPC.203(62) adopted on 15 July 2011 by the Marine Environment Protection Committee of the International Maritime Organization, i.e., inclusion of regulations on energy efficiency for ships]

**“AMENDMENTS TO MARPOL ANNEX VI ON REGULATIONS FOR
THE PREVENTION OF AIR POLLUTION FROM SHIPS BY
INCLUSION OF NEW REGULATIONS ON ENERGY EFFICIENCY FOR
SHIPS**

CHAPTER 1

GENERAL

Regulation 1

Application

1 The regulation is amended as follows:

“The provisions of this Annex shall apply to all ships, except where expressly provided otherwise in regulations 3, 5, 6, 13, 15, 16, 18, 19, 20, 21, 22 and 23 of this Annex.”

Regulation 2

Definitions

2 Paragraph 21 is amended as follows:

“21 *Tanker* in relation to regulation 15 means an oil tanker as defined in regulation 1 of Annex I or a chemical tanker as defined in regulation 1 of Annex II of the present Convention.”

3 The following is added at the end of regulation 2:

“For the purpose of chapter 4:

22 “Existing ship” means a ship which is not a new ship.

23 “New ship” means a ship:

.1 for which the building contract is placed on or after 1 January 2013;

or

.2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2013;

or

.3 the delivery of which is on or after 1 July 2015.

24 “Major Conversion” means in relation to chapter 4 a conversion of a ship:

.1 which substantially alters the dimensions, carrying capacity or engine power of the ship; or

.2 which changes the type of the ship; or

.3 the intent of which in the opinion of the Administration is substantially to prolong the life of the ship; or

.4 which otherwise so alters the ship that, if it were a new ship, it would become subject to relevant provisions of the present Convention not applicable to it as an existing ship; or

.5 which substantially alters the energy efficiency of the ship and includes any modifications that could cause the ship to exceed the applicable required EEDI as set out in regulation 21.

25 “Bulk carrier” means a ship which is intended primarily to carry dry cargo in bulk, including such types as ore carriers as defined in SOLAS chapter XII, regulation 1, but excluding combination carriers.

26 “Gas carrier” means a cargo ship constructed or adapted and used for the carriage in bulk of any liquefied gas.

27 “Tanker” in relation to chapter 4 means an oil tanker as defined in MARPOL Annex I, regulation 1 or a chemical tanker or an NLS tanker as defined in MARPOL Annex II, regulation 1.

28 “Container ship” means a ship designed exclusively for the carriage of containers in holds and on deck.

29 “General cargo ship” means a ship with a multi-deck or single deck hull designed primarily for the carriage of general cargo. This definition excludes specialized dry cargo ships, which are not included in the calculation of reference lines for general cargo ships, namely livestock carrier, barge carrier, heavy load carrier, yacht carrier, nuclear fuel carrier.

30 “Refrigerated cargo carrier” means a ship designed exclusively for the carriage of refrigerated cargoes in holds.

31 “Combination carrier” means a ship designed to load 100% deadweight with both liquid and dry cargo in bulk.

32 “Passenger ship” means a ship which carries more than 12 passengers.

33 “Ro-ro cargo ship (vehicle carrier)” means a multi deck roll-on-roll-off cargo ship designed for the carriage of empty cars and trucks.

34 “Ro-ro cargo ship” means a ship designed for the carriage of roll-on-roll-off cargo transportation units.

35 “Ro-ro passenger ship” means a passenger ship with roll-on-roll-off cargo spaces.

36 “Attained EEDI” is the EEDI value achieved by an individual ship in accordance with regulation 20 of chapter 4.

37 “Required EEDI” is the maximum value of attained EEDI that is allowed by regulation 21 of chapter 4 for the specific ship type and size.”

CHAPTER 2

SURVEY, CERTIFICATION AND MEANS OF CONTROL

Regulation 5

Surveys

4 Paragraph 1 is amended as follows:

“1 Every ship of 400 gross tonnage and above and every fixed and floating drilling rig and other platforms shall to ensure compliance with chapter 3 be subject to the surveys specified below:

- .1 An initial survey before the ship is put into service or before the certificate required under regulation 6 of this Annex is issued for the first time. This survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of chapter 3;
- .2 A renewal survey at intervals specified by the Administration, but not exceeding five years, except where regulation 9.2, 9.5, 9.6 or 9.7 of this Annex is applicable. The renewal survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with applicable requirements of chapter 3;
- .3 An intermediate survey within three months before or after the second anniversary date or within three months before or after the third anniversary date of the certificate which shall take the place of one of the annual surveys specified in paragraph 1.4 of this regulation. The intermediate survey shall be such as to ensure that the equipment and arrangements fully comply with the applicable

requirements of chapter 3 and are in good working order. Such intermediate surveys shall be endorsed on the IAPP Certificate issued under regulation 6 or 7 of this Annex;

- .4 An annual survey within three months before or after each anniversary date of the certificate, including a general inspection of the equipment, systems, fittings, arrangements and material referred to in paragraph 1.1 of this regulation to ensure that they have been maintained in accordance with paragraph 5 of this regulation and that they remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the IAPP Certificate issued under regulation 6 or 7 of this Annex; and
- .5 An additional survey either general or partial, according to the circumstances, shall be made whenever any important repairs or renewals are made as prescribed in paragraph 5 of this regulation or after a repair resulting from investigations prescribed in paragraph 6 of this regulation. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of chapter 3.”

5 Paragraph 2 is amended as follows:

“2 In the case of ships of less than 400 gross tonnage, the Administration may establish appropriate measures in order to ensure that the applicable provisions of chapter 3 are complied with.”

6 A new paragraph 4 is added after existing paragraph 3 as follows:

“4 Ships to which chapter 4 applies shall also be subject to the surveys specified below, taking into account Guidelines adopted by the Organization¹:

- .1 An initial survey before a new ship is put in service and before the International Energy Efficiency Certificate is issued. The survey shall verify that the ship’s attained EEDI is in accordance with the requirements in chapter 4, and that the SEEMP required by regulation 22 is on board;
- .2 A general or partial survey, according to the circumstances, after a major conversion of a ship to which this regulation applies. The survey shall ensure that the attained EEDI is recalculated as necessary and meets the requirement of regulation 21, with the reduction factor applicable to the ship type and size of the converted ship in the phase corresponding to the date of contract or keel laying or delivery determined for the original ship in accordance with regulation 2.23;

- .3 In cases where the major conversion of a new or existing ship is so extensive that the ship is regarded by the Administration as a newly constructed ship, the Administration shall determine the necessity of an initial survey on attained EEDI. Such a survey, if determined necessary, shall ensure that the attained EEDI is calculated and meets the requirement of regulation 21, with the reduction factor applicable corresponding to the ship type and size of the converted ship at the date of the contract of the conversion, or in the absence of a contract, the commencement date of the conversion. The survey shall also verify that the SEEMP required by regulation 22 is on board; and
- .4 For existing ships, the verification of the requirement to have a SEEMP on board according to regulation 22 shall take place at the first intermediate or renewal survey identified in paragraph 1 of this regulation, whichever is the first, on or after 1 January 2013.”

¹Refer to Guidelines on Survey and Certification of the Energy Efficiency Design Index.

7 Paragraph 4 is renumbered paragraph 5.

8 Paragraph 5 is renumbered paragraph 6.

Regulation 6

Issue or endorsement of a Certificate

9 The heading is amended as follows:

“Issue or endorsement of Certificates”

10 The following sub-heading is added at the beginning of the regulation:

“International Air Pollution Prevention Certificate”

11 Paragraph 2 is amended as follows:

“2 A ship constructed before the date Annex VI enters into force for that particular ship’s Administration, shall be issued with an International Air Pollution Prevention Certificate in accordance with paragraph 1 of this regulation no later than the first scheduled dry-docking after the date of such entry into force, but in no case later than three years after this date.”

12 The following is added at the end of the regulation:

“International Energy Efficiency Certificate

4 An International Energy Efficiency Certificate for the ship shall be issued after a survey in accordance with the provisions of regulation 5.4 to any ship of 400 gross tonnage and above before that ship may engage in voyages to ports or offshore terminals under the jurisdiction of other Parties.

5 The certificate shall be issued or endorsed either by the Administration or any organization duly authorized by it². In every case, the Administration assumes full responsibility for the certificate.”

² Refer to the Guidelines for the authorization of organizations acting on behalf of the Administration, adopted by the Organization by resolution A.739(18), as may be amended by the Organization, and the Specifications on the survey and certification functions of recognized organizations acting on behalf of the Administration, adopted by the Organization by resolution A.789(19), as may be amended by the Organization.

Regulation 7

Issue of a Certificate by another Party

13 Paragraph 1 is amended as follows:

“1 A Party may, at the request of the Administration, cause a ship to be surveyed and, if satisfied that the applicable provisions of this Annex are complied with, shall issue or authorize the issuance of an International Air Pollution Prevention Certificate or an International Energy Efficiency Certificate to the ship, and where appropriate, endorse or authorize the endorsement of such certificates on the ship, in accordance with this Annex.”

14 Paragraph 4 is amended as follows:

“4 No International Air Pollution Prevention Certificate or International Energy Efficiency Certificate shall be issued to a ship which is entitled to fly the flag of a State which is not a Party.”

Regulation 8

Form of Certificate

15 The heading is amended as follows:

“Form of Certificates”

16 The following subheading is added, and the existing regulation is renumbered as paragraph 1:

“International Air Pollution Prevention Certificate”

17 The following new paragraph 2 is added at the end of the regulation:

“International Energy Efficiency Certificate

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

Regulation 9

Duration and Validity of Certificate

18 The heading is amended as follows:

“Duration and Validity of Certificates”

19 The following subheading is added at the beginning of the regulation:

“International Air Pollution Prevention Certificate”

20 The following is added at the end of the regulation:

“International Energy Efficiency Certificate

10 The International Energy Efficiency Certificate shall be valid throughout the life of the ship subject to the provisions of paragraph 11 below.

11 An International Energy Efficiency Certificate issued under this Annex shall cease to be valid in any of the following cases:

- .1 if the ship is withdrawn from service or if a new certificate is issued following major conversion of the ship; or
- .2 upon transfer of the ship to the flag of another State. A new certificate shall only be issued when the Government issuing the new certificate is fully satisfied that the ship is in compliance with the requirements of chapter 4. In the case of a transfer between Parties, if requested within three months after the transfer has taken place, the Government of the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports.”

Regulation 10

Port State Control on Operational Requirements

21 A new paragraph 5 is added at the end of the regulation as follows:

“5 In relation to chapter 4, any port State inspection shall be limited to verifying, when appropriate, that there is a valid International Energy Efficiency Certificate on board, in accordance with article 5 of the Convention.”

22 A new chapter 4 is added at the end of the Annex as follows:

“CHAPTER 4

REGULATIONS ON ENERGY EFFICIENCY FOR SHIPS

Regulation 19

Application

- 1 This chapter shall apply to all ships of 400 gross tonnage and above.
- 2 The provisions of this chapter shall not apply to:
 - .1 ships solely engaged in voyages within waters subject to the sovereignty or jurisdiction of the State the flag of which the ship is entitled to fly. However, each Party should ensure, by the adoption of appropriate measures, that such ships are constructed and act in a manner consistent with chapter 4, so far as is reasonable and practicable.
- 3 Regulation 20 and regulation 21 shall not apply to ships which have diesel-electric propulsion, turbine propulsion or hybrid propulsion systems.
- 4 Notwithstanding the provisions of paragraph 1 of this regulation, the Administration may waive the requirement for a ship of 400 gross tonnage and above from complying with regulation 20 and regulation 21.
- 5 The provision of paragraph 4 of this regulation shall not apply to ships of 400 gross tonnage and above:
 - .1 for which the building contract is placed on or after 1 January 2017;
or
 - .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2017;
or
 - .3 the delivery of which is on or after 1 July 2019; or
 - .4 in cases of a major conversion of a new or existing ship, as defined in regulation 2.24, on or after 1 January 2017, and in which regulation 5.4.2 and regulation 5.4.3 of chapter 2 apply.
- 6 The Administration of a Party to the present Convention which allows application of paragraph 4, or suspends, withdraws or declines the application of that paragraph, to a ship entitled to fly

its flag shall forthwith communicate to the Organization for circulation to the Parties to the present Protocol particulars thereof, for their information.

Regulation 20

Attained Energy Efficiency Design Index (Attained EEDI)

- 1 The attained EEDI shall be calculated for:
 - .1 each new ship;
 - .2 each new ship which has undergone a major conversion; and
 - .3 each new or existing ship which has undergone a major conversion, that is so extensive that the ship is regarded by the Administration as a newly constructed ship

which falls into one or more of the categories in regulations 2.25 to 2.35. The attained EEDI shall be specific to each ship and shall indicate the estimated performance of the ship in terms of energy efficiency, and be accompanied by the EEDI technical file that contains the information necessary for the calculation of the attained EEDI and that shows the process of calculation. The attained EEDI shall be verified, based on the EEDI technical file, either by the Administration or by any organization³ duly authorized by it.

- 2 The attained EEDI shall be calculated taking into account guidelines⁴ developed by the Organization.

³Refer to the Guidelines for the authorization of organizations acting on behalf of the Administration, adopted by the Organization by resolution A.739(18), as may be amended by the Organization, and the Specifications on the survey and certification functions of recognized organizations acting on behalf of the Administration, adopted by the Organization by resolution A.789(19), as may be amended by the Organization.

⁴Guidelines on the method of calculation of the Energy Efficiency Design Index for new ships.

Regulation 21

Required EEDI

- 1 For each:
 - .1 new ship;
 - .2 new ship which has undergone a major conversion; and
 - .3 new or existing ship which has undergone a major conversion that is so extensive that the ship is regarded by the Administration as a newly constructed ship

which falls into one of the categories defined in regulation 2.25 to 2.31 and to which this chapter is applicable, the attained EEDI shall be as follows:

$$\text{Attained EEDI} \leq \text{Required EEDI} = (1-X/100) \times \text{Reference line value}$$

where X is the reduction factor specified in Table 1 for the required EEDI compared to the EEDI Reference line.

- 2 For each new and existing ship that has undergone a major conversion which is so extensive that the ship is regarded by the Administration as a newly constructed ship, the attained EEDI shall be calculated and meet the requirement of paragraph 21.1 with the reduction factor applicable corresponding to the ship type and size of the converted ship at the date of the contract of the conversion, or in the absence of a contract, the commencement date of the conversion.

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

Ship Type	Size	Phase 0	Phase 1	Phase 2	Phase 3
		1 Jan 2013–31 Dec 2014	1 Jan 2015–31 Dec 2019	1 Jan 2020–31 Dec 2024	1 Jan 2025 and onwards
Bulk carrier	20,000 DWT and above	0	10	20	30
	10,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*
Gas carrier	10,000 DWT and above	0	10	20	30
	2,000 – 10,000 DWT	n/a	0-10*	0-20*	0-30*
Tanker	20,000 DWT and above	0	10	20	30
	4,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*
Container ship	15,000 DWT and above	0	10	20	30
	10,000 – 15,000 DWT	n/a	0-10*	0-20*	0-30*
General Cargo ships	15,000 DWT and above	0	10	15	30
	3,000 – 15,000 DWT	n/a	0-10*	0-15*	0-30*
Refrigerated cargo carrier	5,000 DWT and above	0	10	15	30
	3,000 – 5,000 DWT	n/a	0-10*	0-15*	0-30*
Combination carrier	20,000 DWT and above	0	10	20	30
	4,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*

* Reduction factor to be linearly interpolated between the two values dependent upon vessel size. The lower value of the reduction factor is to be applied to the smaller ship size.

n/a means that no required EEDI applies.

3 The Reference line values shall be calculated as follows:

$$\text{Reference line value} = a \times b^c$$

where a, b and c are the parameters given in Table 2.

Table 2. Parameters for determination of reference values for the different ship types

Ship type defined in regulation 2	a	b	c
2.25 Bulk carrier	961.79	DWT of the ship	0.477
2.26 Gas carrier	1120.00	DWT of the ship	0.456
2.27 Tanker	1218.80	DWT of the ship	0.488
2.28 Container ship	174.22	DWT of the ship	0.201
2.29 General cargo ship	107.48	DWT of the ship	0.216
2.30 Refrigerated cargo carrier	227.01	DWT of the ship	0.244
2.31 Combination carrier	1219.00	DWT of the ship	0.488

4 If the design of a ship allows it to fall into more than one of the above ship type definitions, the required EEDI for the ship shall be the most stringent (the lowest) required EEDI.

5 For each ship to which this regulation applies, the installed propulsion power shall not be less than the propulsion power needed to maintain the manoeuvrability of the ship under adverse conditions as defined in the guidelines to be developed by the Organization.

6 At the beginning of Phase 1 and at the midpoint of Phase 2, the Organization shall review the status of technological developments and, if proven necessary, amend the time periods, the EEDI reference line parameters for relevant ship types and reduction rates set out in this regulation.

Regulation 22

Ship Energy Efficiency Management Plan (SEEMP)

1 Each ship shall keep on board a ship specific Ship Energy Efficiency Management Plan (SEEMP). This may form part of the ship's Safety Management System (SMS).

2 The SEEMP shall be developed taking into account guidelines adopted by the Organization.

Regulation 23

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

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

23 A new appendix VIII is added at the end of the Annex as follows:

“APPENDIX VIII

Form of International Energy Efficiency (IEE) Certificate

INTERNATIONAL ENERGY EFFICIENCY CERTIFICATE

Issued under the provisions of the Protocol of 1997, as amended by resolution MEPC.203(62), to amend the International Convention for the Prevention of Pollution by Ships, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as “the Convention”) under the authority of the Government of:

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

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

Particulars of ship⁵

Name of ship

Distinctive number or letters

Port of registry

Gross tonnage.....

IMO Number⁶.....

⁵ Alternatively, the particulars of the ship may be placed horizontally in boxes.

⁶ In accordance with IMO ship identification number scheme, adopted by the Organization by resolution A.600(15).

THIS IS TO CERTIFY:

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

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

Issued at
(Place of issue of the certificate)

(dd/mm/yyyy):
(Date of issue)

(Signature of duly authorized official
issuing the certificate)

(Seal or stamp of the authority, as appropriate)

Supplement to the International Energy Efficiency Certificate (IEE Certificate)

RECORD OF CONSTRUCTION RELATING TO ENERGY EFFICIENCY

Notes:

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

1 Particulars of ship

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

* Insert ship type in accordance with definitions specified in regulation 2. Ships falling into more than one of the ship types defined in regulation 2 should be considered as being the ship type with the most stringent (the lowest) required EEDI. If ship does not fall into the ship types defined in regulation 2, insert “Ship other than any of the ship type defined in regulation 2”.

2 Propulsion system

- 2.1 Diesel propulsion
- 2.2 Diesel-electric propulsion
- 2.3 Turbine propulsion
- 2.4 Hybrid propulsion.....

2.5 Propulsion system other than any of the above.....

3 Attained Energy Efficiency Design Index (EEDI)

3.1 The Attained EEDI in accordance with regulation 20.1 is calculated based on the information contained in the EEDI technical file which also shows the process of calculating the Attained EEDI.

The Attained EEDI is:..... grams-CO₂/tonne-mile

3.2 The Attained EEDI is not calculated as:

3.2.1 the ship is exempt under regulation 20.1 as it is not a new ship as defined in regulation 2.23

3.2.2 the type of propulsion system is exempt in accordance with regulation 19.3

3.2.3 the requirement of regulation 20 is waived by the ship's Administration in accordance with regulation 19.4

3.2.4 the type of ship is exempt in accordance with regulation 20.1

4 Required EEDI

4.1 Required EEDI is:..... grams-CO₂/tonne-mile

4.2 The required EEDI is not applicable as:

4.2.1 the ship is exempt under regulation 21.1 as it is not a new ship as defined in regulation 2.23

4.2.2 the type of propulsion system is exempt in accordance with regulation 19.3

4.2.3 the requirement of regulation 21 is waived by the ship's Administration in accordance with regulation 19.4

4.2.4 the type of ship is exempt in accordance with regulation 21.1

4.2.5 the ship's capacity is below the minimum capacity threshold in Table 1 of regulation 21.2

5 Ship Energy Efficiency Management Plan

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

6 EEDI technical file

6.1 The IEE Certificate is accompanied by the EEDI technical file in compliance with regulation 20.1

6.2 The EEDI technical file identification/verification number

6.3 The EEDI technical file verification date

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

Issued at
(Place of issue of the Record)

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

(Seal or stamp of the authority, as appropriate)”. ”



GIVEN under my Official Seal,
31 January 2013.

LEO VARADKAR,
Minister for Transport, Tourism and Sport.

EXPLANATORY NOTE

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

These Regulations amend the Sea Pollution (Prevention of Air Pollution from Ships) Regulations 2010 (S.I. No.313 of 2010) on the prevention of air pollution from ships, the broad purpose of which was to give effect to MARPOL Annex VI in Irish law.

The broad purpose of these Regulations is to provide for amendments to MARPOL Annex VI including:

- the addition of a new chapter 4 to MARPOL Annex VI to make mandatory the Energy Efficiency Design Index (EEDI) for new applicable ships, and the Ship Energy Efficiency Management Plan (SEEMP) for all applicable ships;
- the provision of a format for the International Energy Efficiency Certificate (IEE Certificate) which is provided in the new Appendix VIII to MARPOL Annex VI; and
- the designation of certain waters adjacent to the coasts of Puerto Rico (United States) and the Virgin Islands (United States) as Emission Control Areas (ECA) under MARPOL Annex VI Regulation 13 concerning nitrogen oxides (NO_x) and under MARPOL Annex VI Regulation 14 concerning sulphur oxides (SO_x) and particulate matter.

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