

RESOLUTION MEPC.203(62)

Adopted on 15 July 2011

**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**

(Inclusion of regulations on energy efficiency for ships in MARPOL Annex VI)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention"), article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") and article 4 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 (hereinafter referred to as the "1997 Protocol"), which together specify the amendment procedure of the 1997 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 and 1997 Protocols,

NOTING ALSO that, by the 1997 Protocol, Annex VI entitled Regulations for the Prevention of Air Pollution from Ships was added to the 1973 Convention (hereinafter referred to as "Annex VI"),

NOTING FURTHER that the revised Annex VI was adopted by resolution MEPC.176(58) and entered into force on 1 July 2010,

RECOGNIZING that the amendments to Annex VI and inclusion of a new chapter 4 intend to improve energy efficiency for ships through a set of technical performance standards, which would result in reduction of emissions of any substances that originate from fuel oil and its combustion process, including those already controlled by Annex VI,

RECOGNIZING ALSO that adoption of the amendments to Annex VI in no way prejudices the negotiations held in other international fora, such as the United Nations Framework Convention on Climate Change (UNFCCC), nor affect the positions of the countries that participate in such negotiation,

HAVING CONSIDERED draft amendments to the revised Annex VI for inclusion of regulations on energy efficiency for ships,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annex VI, the text of which is set out in the annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 July 2012, unless prior to that date, not less than one third of the Parties or Parties the combined merchant fleets of which

constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;

3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 January 2013 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to the 1973 Convention, as modified by the 1978 and 1997 Protocols, certified copies of the present resolution and the text of the amendments contained in the Annex;

5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1973 Convention, as modified by the 1978 and 1997 Protocols, copies of the present resolution and its Annex; and

6. INVITES the Parties to MARPOL Annex VI and other Member Governments to bring the amendments to MARPOL Annex VI to the attention of shipowners, ship operators, shipbuilders, ship designers, marine diesel engine and equipment manufacturers as well as any other interested groups.

ANNEX

**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."

¹ Refer 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."

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,

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.

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.

³ 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.

⁴ Guidelines 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 1 Jan 2013 – 31 Dec 2014	Phase 1 1 Jan 2015 – 31 Dec 2019	Phase 2 1 Jan 2020 – 31 Dec 2024	Phase 3 1 Jan 2025 and onwards
Bulk carrier	20,000 DWT and above	0	10	20	30
	10,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*
Gas carrier	10,000 DWT and above	0	10	20	30
	2,000 – 10,000 DWT	n/a	0-10*	0-20*	0-30*
Tanker	20,000 DWT and above	0	10	20	30
	4,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*
Container ship	15,000 DWT and above	0	10	20	30
	10,000 – 15,000 DWT	n/a	0-10*	0-20*	0-30*

Ship Type	Size	Phase 0 1 Jan 2013 – 31 Dec 2014	Phase 1 1 Jan 2015 – 31 Dec 2019	Phase 2 1 Jan 2020 – 31 Dec 2024	Phase 3 1 Jan 2025 and onwards
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

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)

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).

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

RECORD OF CONSTRUCTION RELATING TO ENERGY EFFICIENCY

Notes:

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

1 Particulars of ship

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

2 Propulsion system

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

* 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".

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)"

國際能源效率證書

INTERNATIONAL ENERGY EFFICIENCY CERTIFICATE

茲由中華民國政府委託中國驗船中心依照1997年議定書及MEPC.203(62)決議案

修訂經1978年議定書修訂之1973年防止船舶污染國際公約

(以下簡稱為"本公約")之規定發給本證書

中 華 民 國

REPUBLIC OF CHINA

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
the **REPUBLIC OF CHINA** by **China Corporation Register of Shipping**

證書號碼 Certificate No.

船名 Name of ship	船舶號數或信號符字 Distinctive number or letters	船籍港 Port of registry	總噸位 Gross tonnage	IMO 編號 IMO number

茲 證 明
THIS IS TO CERTIFY:

1. 本船業已依本公約附錄VI規則第5.4條之規定檢驗；及
That the ship has been surveyed in accordance with regulation 5.4 of Annex VI of the Convention; and
2. 經檢驗顯示船舶符合規則第20,21,22條所適用的要求。
That the survey shows that the ship complies with the applicable requirements in regulation 20, regulation 21 and regulation 22.

本證書所依據之檢驗完成日期

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

發證地點

Issued at

發證日期

Date of issue (dd/mm/yyyy)



KUEN-RONG CHENG 中國驗船中心 總驗船師
Chief Surveyor
China Corporation Register of Shipping

證書號碼 Certificate No.

國際能源效率證書附頁
Supplement to International Energy Efficiency Certificate

(IEE 證書)
(IEE Certificate)

與能源效率相關之構造紀錄
RECORD OF CONSTRUCTION RELATING TO ENERGY EFFICIENCY

附註：

Notes：

1. 本紀錄必須永久依附在IEE證書。IEE證書應隨時保存於船上。
This Record shall be permanently attached to the IEE Certificate. The IEE Certificate shall be available on board the ship at all times.
2. 本紀錄至少應使用英文、法文或西班牙文其中之一。若同時使用簽發國之官方語言，則在有爭議或衝突時以官方語言為優先。
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. 依適用情況在方框中填入"×"代表「是」和「適用」或"—"代表「否」和「不適用」。
Entries in boxes shall be made by inserting either a cross (×) for the answers "yes" and "applicable" or a (—) for the answers "no" and "not applicable" as appropriate.
4. 除非另有說明，在本紀錄中所提及之規則，係指本公約附錄VI之規則而提及之決議案或通報係指經國際海事組織所採納者。
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 船舶要目
Particulars of ship
 - 1.1 船名
Name of ship
 - 1.2 IMO編號
IMO number
 - 1.3 建造合約之日期
Date of building contract
 - 1.4 總噸位
Gross tonnage
 - 1.5 載重噸
Deadweight
 - 1.6 船型*
Type of ship*
- 2 推進系統
Propulsion system
 - 2.1 柴油機推進
Diesel Propulsion 【 】
 - 2.2 柴油機電力推進
Diesel-electric propulsion 【 】

* 根據規則2的定義標明船型。屬於規則2定義中兩種船型以上之船舶，應考量其中最嚴謹(最小值)船型的EEDI要求。若船舶不屬於規則2所定義的船型，需標明“規則2定義之外的其他船型”
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".

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- 2.3 渦輪機推進
Turbine propulsion 【 】
- 2.4 複合推進
Hybrid propulsion 【 】
- 2.5 除了上述之外的推進系統
Propulsion system other than any of the above 【 】
- 3 能源效率設計指標計算值
Attained Energy Efficiency Design Index (EEDI)
- 3.1 依據能源效率設計指標技術卷的資訊來計算規則20.1中的能源效率設計指標計算值，其中也提供了能源效率設計指標計算值的計算過程。
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 【 】
- 能源效率設計指標計算值 克-二氧化碳/公噸-海哩
The Attained EEDI is: grams-CO₂/tonne-mile
- 3.2 能源效率設計指數計算值不需計算，當：
The Attained EEDI is not calculated as:
- 3.2.1 本船根據規則20.1被予以豁免，因本船非規則2.23中所定義的新船
the ship is exempt under regulation 20.1 as it is not a new ship as defined in regulation 2.23 【 】
- 3.2.2 本推進系統型式根據規則19.3予以豁免
the type of propulsion system is exempt in accordance with regulation 19.3 【 】
- 3.2.3 依據規則19.4，船舶所屬的主管機關豁免符合規則20的要求
the requirement of regulation 20 is waived by the ship's Administration in accordance with regulation 19.4 【 】
- 3.2.4 本船型根據規則20.1予以豁免
the type of ship is exempt in accordance with regulation 20.1 【 】
- 4 能源效率設計指標要求值
Required EEDI
- 4.1 能源效率設計指標要求值為：
Required EEDI is: 克-二氧化碳/公噸-海哩
grams-CO₂/tonne-mile
- 4.2 能源效率設計指標要求值不需計算，當：
The required EEDI is not applicable as:
- 4.2.1 本船根據規則21.1被予以豁免，因本船非規則2.23中所定義的新船
the ship is exempt under regulation 21.1 as it is not a new ship as defined in regulation 2.23 【 】
- 4.2.2 本推進系統型式根據規則19.3予以豁免
the type of propulsion system is exempt in accordance with regulation 19.3 【 】
- 4.2.3 依據規則19.4，船舶所屬的主管機關豁免符合規則21的要求
the requirement of regulation 21 is waived by the ship's Administration in accordance with regulation 19.4 【 】
- 4.2.4 本船型根據規則21.1予以豁免
the type of ship is exempt in accordance with regulation 21.1 【 】
- 4.2.5 本船的載貨容量是低於規則21.2表1的最小載貨容量門檻
the ship's capacity is below the minimum capacity threshold in Table 1 of regulation 21.2 【 】
- 5 船舶能源效率管理計畫
Ship Energy Efficiency Management Plan
- 5.1 船舶有依照規則22提供船舶能源效率管理計畫
The ship is provided with a Ship Energy Efficiency Management Plan (SEEMP) in compliance with regulation 22 【 】

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- 6 能源效率設計指標技術卷
EEDI technical file
- 6.1 依照規則20.1，國際能源效率證書需附有能源效率管理設計指標技術卷
The IEE Certificate is accompanied by the EEDI technical file in compliance with regulation 20.1 【 】
- 6.2 能源效率設計指標技術卷識別/驗證碼
The EEDI technical file identification/verification number
- 6.3 能源效率設計指標技術卷驗證日期
The EEDI technical file verification date

茲證明 本紀錄在所有各方面均屬正確。
THIS IS TO CERTIFY that this Record is correct in all respects.

發證地點
Issued at

發證日期
Date of issue (dd/mm/yyyy)



.....
KUEN-RONG CHENG

.....
中國驗船中心 總驗船師
Chief Surveyor
China Corporation Register of Shipping