

DIRECTIVE (EU) 2016/802 of 11 May 2016 relating to a reduction in the sulphur content of certain liquid fuels (codification)

Incorporated and adapted by Ministerial Council Decision 2016/15/MC-EnC of 14 October 2016 on amending the Treaty establishing the Energy Community and adapting and implementing Directive (EU) 2016/802 of the European Parliament and of the Council and Commission Implementing Decision (EU) 2015/253.

Commission Implementing Decision (EU) 2015/253 laying down the rules concerning the sampling and reporting under Council Directive 1999/32/EC as regards the sulphur content of marine fuels, while being part of the Energy Community environmental acquis, is not displayed in the present Legal Framework.

*The adaptations made by Ministerial Council Decision 2016/15/MC-EnC are highlighted in **bold and blue**, the changes to Directive 1999/32/EC introduced by Directive (EU) 2016/802/EU are highlighted in **bold**.*

Article 1

Purpose and scope

1. The purpose of this Directive is to reduce the emissions of sulphur dioxide resulting from the combustion of certain types of liquid fuels and thereby to reduce the harmful effects of such emissions on man and the environment.

2. Reductions in emissions of sulphur dioxide resulting from the combustion of certain petroleum-derived liquid fuels shall be achieved by imposing limits on the sulphur content of such fuels as a condition for their use within **Contracting Parties'** territory, territorial seas and exclusive economic zones or pollution control zones.

The limitations on the sulphur content of certain petroleum-derived liquid fuels as laid down in this Directive shall not, however, apply to:

- (a) fuels intended for the purposes of research and testing;
- (b) fuels intended for processing prior to final combustion;
- (c) fuels to be processed in the refining industry;
- (d) <...>¹
- (e) fuels used by warships and other vessels on military service. However, each **Contracting Party** shall endeavour to ensure, by the adoption of appropriate measures not impairing the operations or operational capability of such ships, that the ships act in a manner consistent, so far as is reasonable and practical, with this Directive;
- (f) any use of fuels in a vessel necessary for the specific purpose of securing the safety of a ship or saving life at sea;

¹ According to point (a) of Article 2(1) of Decision 2016/15/MC-EnC, point (d) of Article 1(2) shall not be applicable in the Energy Community.

(g) any use of fuels in a ship necessitated by damage sustained by it or its equipment, provided that all reasonable measures are taken after the occurrence of the damage to prevent or minimise excess emissions and that measures are taken as soon as possible to repair the damage. This shall not apply if the owner or master acted either with intent to cause damage, or recklessly;

(h) without prejudice to Article 5, fuels used on board vessels employing emission abatement methods in accordance with Articles 8 and 10.

Article 2

Definitions

For the purpose of this Directive **the following definitions shall apply:**

(a) 'heavy fuel oil' means:

(i) any petroleum-derived liquid fuel, excluding marine fuel, falling within CN codes 2710 19 51 to 2710 19 68, 2710 20 31, 2710 20 35 **or** 2710 20 39; or

(ii) any petroleum-derived liquid fuel, other than gas oil as defined in point (b) **and other than marine fuels as defined in points (c), (d) and (e)**, which, by reason of its distillation limits, falls within the category of heavy oils intended for use as fuel and of which less than 65% by volume (including losses) distils at 250 °C by the ASTM D86 method. If the distillation cannot be determined by the ASTM D86 method, the petroleum product is likewise categorised as a heavy fuel oil;

(b) 'gas oil' means:

(i) any petroleum-derived liquid fuel, excluding marine fuel, falling within CN codes 2710 19 25, 2710 19 29, 2710 19 47, 2710 19 48, 2710 20 17 or 2710 20 19; or

(ii) any petroleum-derived liquid fuel, excluding marine fuel, of which less than 65% by volume (including losses) distils at 250 °C and of which at least 85% by volume (including losses) distils at 350 °C by the ASTM D86 method. Diesel fuels as defined in point 2 of Article 2 of Directive 98/70/EC of the European Parliament and of the Council are excluded from this definition. Fuels used in non-road mobile machinery and agricultural tractors are also excluded from this definition;

(c) 'marine fuel' means any petroleum-derived liquid fuel intended for use or in use on board a vessel, including those fuels defined in ISO 8217. It includes any petroleum-derived liquid fuel in use on board inland waterway vessels or recreational craft, as defined respectively in Article 2 of Directive 97/68/EC of the European Parliament and of the Council and Article 1(3) of Directive 94/25/EC of the European Parliament and of the Council, when such vessels are at sea;

(d) 'marine diesel oil' means any marine fuel as defined for DMB grade in Table I of ISO 8217 with the exception of the reference to the sulphur content;

(e) 'marine gas oil' means any marine fuel as defined for DMX, DMA and DMZ grades in Table I of ISO 8217 with the exception of the reference to the sulphur content;

(f) 'MARPOL' means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto;

(g) 'Annex VI to MARPOL' means the annex, entitled 'Regulations for the Prevention of Air Pollution from Ships', which the Protocol of 1997 added to MARPOL;

(h) **'SO_x Emission Control Areas'** means sea areas defined as such by the International Maritime Organisation (IMO) under Annex VI to MARPOL;

(i) **'passenger ships'** means ships that carry more than 12 passengers, where a passenger is every person other than:

(i) the master and the members of the crew or other person employed or engaged in any capacity on board a ship on the business of that ship; and

(ii) a child under 1 year of age;

(j) **'regular services'** means a series of passenger ship crossings operated so as to serve traffic between the same two or more ports, or a series of voyages from and to the same port without intermediate calls, either:

(i) according to a published timetable; or

(ii) **with crossings so regular or frequent that they constitute a recognisable schedule;**

(k) **'warship'** means a ship belonging to the armed forces of a State, bearing the external marks distinguishing such ships of its nationality, under the command of an officer duly commissioned by the government of the State and whose name appears in the appropriate service list or its equivalent, and manned by a crew which is under regular armed forces discipline;

(l) **'ships at berth'** means ships which are securely moored or anchored in a Community port while they are loading, unloading or hotelling, including the time spent when not engaged in cargo operations;

(m) **'placing on the market'** means supplying or making available to third persons, against payment or free of charge, anywhere within Contracting Parties' jurisdictions, marine fuels for on-board combustion. It excludes supplying or making available marine fuels for export in ships' cargo tanks;

(n) <...>²

(o) **'emission abatement method'** means any fitting, material, appliance or apparatus to be fitted in a ship or other procedure, alternative fuel, or compliance method, used as an alternative to low sulphur marine fuel meeting the requirements set out in this Directive, that is verifiable, quantifiable and enforceable;

(p) **'ASTM method'** means the methods laid down by the American Society for Testing and Materials in the 1976 edition of standard definitions and specifications for petroleum and lubricating products;

(q) **'combustion plant'** means any technical apparatus in which fuels are oxidised in order to use the heat generated.

Article 3

Maximum sulphur content of heavy fuel oil

1. **Contracting Parties** shall <...> ensure that <...> heavy fuel oils are not used within their territory if their sulphur content exceeds 1,00% by mass.

² Not applicable in accordance with Article 2(1)(e) of Decision 2016/15/MC-EnC.

2. <...> **Until 31 December 2027**, subject to appropriate monitoring of emissions by competent authorities, paragraph 1 shall not apply to heavy fuel oils used:

(a) in combustion plants which fall within the scope of **Directive 2001/80/EC**, which are **subject to Article 4(1) or (2) or point (a) of Article 4(3) of that Directive** and which comply with the emission limits for sulphur dioxide for such plants as set out **in that Directive**;

(b) in combustion plants which fall within the scope of Directive 2001/80/EC, which are subject to point (b) of Article 4(3) and Article 4(6) of that Directive and the monthly average sulphur dioxide emissions of which do not exceed 1 700 mg/Nm³ at an oxygen content in the flue gas of 3% by volume on a dry basis;

(c) in combustion plants which do not fall under points (a) or (b), and the **monthly average** sulphur dioxide emissions of which do not exceed 1 700 mg/Nm³ at an oxygen content in the flue gas of 3% by volume on a dry basis;

(d) for combustion in refineries, where the monthly average of emissions of sulphur dioxide averaged over all combustion plants in the refinery, irrespective of the type of fuel or fuel combination used, but excluding plants which fall under points (a) and (b), **gas turbines and gas engines**, does not exceed 1 700 mg/Nm³ at an oxygen content in the flue gas of 3% by volume on a dry basis.

3. As from 1 January 2028, subject to appropriate monitoring of emissions by competent authorities, paragraph 1 shall not apply to heavy fuel oils used:

(a) in combustion plants which fall within the scope of **Chapter III of Directive 2010/75/EU**, and which comply with the emission limits for sulphur dioxide for such plants as set out in **Annex V to that Directive or, where those emission limit values are not applicable in accordance with that Directive, for which the monthly average sulphur dioxide emissions does not exceed 1 700 mg/Nm³ at an oxygen content in the flue gas of 3% by volume on a dry basis;**

(b) in combustion plants which do not fall under point (a), and the monthly average sulphur dioxide emissions of which does not exceed 1 700 mg/Nm³ at an oxygen content in the flue gas of 3% by volume on a dry basis;

(c) for combustion in refineries, where the monthly average of emissions of sulphur dioxide averaged over all combustion plants in the refinery, irrespective of the type of fuel or fuel combination used, but excluding plants falling under point (a), gas turbines and gas engines, does not exceed 1 700 mg/Nm³ at an oxygen content in the flue gas of 3% by volume on a dry basis.

Contracting Parties shall take the necessary measures to ensure that no combustion plant using heavy fuel oil with a sulphur concentration greater than that referred to in paragraph 1 is operated without a permit issued by a competent authority, which specifies the emission limits.

Article 4

Maximum sulphur content in gas oil

Contracting Parties shall <...> ensure that gas oils <...> are not used within their territory <...> if their sulphur content exceeds 0,10% by mass.

Article 5**Maximum sulphur content in marine fuel**

Contracting Parties shall ensure that marine fuels are not used within their territory if their sulphur content exceeds 3,50% by mass, except for fuels supplied to ships using emission abatement methods subject to Article 8 operating in closed mode.

Article 6

Maximum sulphur content of marine fuels used in territorial seas, exclusive economic zones and pollution control zones of **Contracting Parties**, including SO_x Emission Control Areas, and by passenger ships operating on regular services to or from **Community** ports

1. **Contracting Parties** shall take all necessary measures to ensure that marine fuels are not used in the areas of their territorial seas, exclusive economic zones and pollution control zones if the sulphur content of those fuels by mass exceeds:

(a) 3,50% as from 1 January 2018, without prejudice to commitments of certain **Contracting Parties** under Annex VI to the International Convention for the Prevention of Pollution from Ships (MARPOL)³;

(b) 0,50% as from 1 January 2020. This paragraph shall apply to all vessels of all flags, including vessels whose journey began outside of the **Community**, without prejudice to paragraphs 2 and 5 of this Article and Article 7.

2. **Contracting Parties** shall take all necessary measures to ensure that marine fuels are not used in the areas of their territorial seas, exclusive economic zones and pollution control zones falling within SO_x Emission Control Areas if the sulphur content of those fuels by mass exceeds:

(a) <...>⁴

(b) 0,10% as from 1 January 2015, in accordance with Article 6(3).⁵

This paragraph shall apply to all vessels of all flags, including vessels whose journey began outside the **Community**.

The **Secretariat** shall have due regard to any future changes to the requirements pursuant to Annex VI to MARPOL applicable within SO_x Emission Control Areas, and, where appropriate, without undue delay make any relevant proposals with a view to amending this Directive accordingly.

3. The application date for paragraph 2 for any new sea areas, including ports, designated by the IMO as SO_x Emission Control Areas in accordance with Regulation 14(3)(b) of Annex VI to MARPOL shall be 12 months after the date of entry into force of the designation.

4. **Contracting Parties** shall be responsible for the enforcement of paragraph 2 at least in respect of:

- vessels flying their flag, and

³ The text displayed here corresponds to point (d) of Article 2(1) of Decision 2016/15/MC-EnC.

⁴ Not applicable in accordance with Article 2(1)(a) of Decision 2016/15/MC-EnC.

⁵ The text displayed here corresponds to point (f) of Article 2(1) of Decision 2016/15/MC-EnC.

- in the case of **Contracting Parties** bordering SO_x Emission Control Areas, vessels of all flags while in their ports.

Contracting Parties may also take additional enforcement action in respect of other vessels in accordance with international maritime law.

5. **Contracting Parties** shall take all necessary measures to ensure that marine fuels are not used in their territorial seas, exclusive economic zones and pollution control zones falling outside SO_x Emission Control Areas by passenger ships operating on regular services to or from any **Community** port if the sulphur content of those fuels exceeds 1,50% by mass until 1 January 2020.

Contracting Parties shall be responsible for the enforcement of this requirement at least in respect of vessels flying their flag and vessels of all flags while in their ports.

6. **Contracting Parties** shall require the correct completion of ships' logbooks, including fuel-changeover operations.

7. **Contracting Parties** shall endeavour to ensure the availability of marine fuels which comply with this Directive and inform the **Secretariat** of the availability of such marine fuels in its ports and terminals.

8. If a ship is found by a **Contracting Party** not to be in compliance with the standards for marine fuels which comply with this Directive, the competent authority of the **Contracting Party** is entitled to require the ship to:

- (a) present a record of the actions taken to attempt to achieve compliance; and
- (b) provide evidence that it attempted to purchase marine fuel which complies with this Directive in accordance with its voyage plan and, if it was not made available where planned, that attempts were made to locate alternative sources for such marine fuel and that, despite best efforts to obtain marine fuel which complies with this Directive, no such marine fuel was made available for purchase.

The ship shall not be required to deviate from its intended voyage or to delay unduly the voyage in order to achieve compliance.

If a ship provides the information referred to in the first subparagraph, the **Contracting Party** concerned shall take into account all relevant circumstances and the evidence presented to determine the appropriate action to take, including not taking control measures.

A ship shall notify its flag State and the competent authority of the relevant port of destination when it cannot purchase marine fuel which complies with this Directive.

A port State shall notify the **Secretariat** when a ship has presented evidence of the non-availability of marine fuels which comply with this Directive.

9. **Contracting Parties** shall, in accordance with Regulation 18 of Annex VI to MARPOL:

- (a) maintain a publicly available register of local suppliers of marine fuel;
- (b) ensure that the sulphur content of all marine fuels sold in their territory is documented by the supplier on a bunker delivery note, accompanied by a sealed sample signed by the representative of the receiving ship;
- (c) take action against marine fuel suppliers that have been found to deliver fuel that does

not comply with the specification stated on the bunker delivery note;

(d) ensure that remedial action is taken to bring any non-compliant marine fuel discovered into compliance.

10. **Contracting Parties** shall ensure that marine diesel oils are not placed on the market in their territory if the sulphur content of those marine diesel oils exceeds 1,50% by mass.

Article 7

Maximum sulphur content of marine fuels used by ships at berth in **Community** ports

1. **Contracting Parties** shall take all necessary measures to ensure that ships at berth in **Community** ports do not use marine fuels with a sulphur content exceeding 0,10% by mass, allowing sufficient time for the crew to complete any necessary fuel-changeover operation as soon as possible after arrival at berth and as late as possible before departure.

Contracting Parties shall require the time of any fuel-changeover operation to be recorded in ships' logbooks.

2. Paragraph 1 shall not apply:

(a) whenever, according to published timetables, ships are due to be at berth for less than two hours;

(b) to ships which switch off all engines and use shore-side electricity while at berth in ports.

3. **Contracting Parties** shall ensure that marine gas oils are not placed on the market in their territory if the sulphur content of those marine gas oils exceeds 0,10% by mass.

Article 8

Emission abatement methods

1. **Contracting Parties** shall allow the use of emission abatement methods by ships of all flags in their ports, territorial seas, exclusive economic zones and pollution control zones, as an alternative to using marine fuels that meet the requirements of Articles 6 and 7, subject to paragraphs 2 and 4 of this Article.

2. Ships using the emission abatement methods referred to in paragraph 1 shall continuously achieve reductions of sulphur dioxide emissions that are at least equivalent to the reductions that would be achieved by using marine fuels that meet the requirements of Articles 6 and 7. Equivalent emission values shall be determined in accordance with Annex I.

3. **Contracting Parties** shall, as an alternative solution for reducing emissions, encourage the use of onshore power supply systems by docked vessels.

4. The emission abatement methods referred to in paragraph 1 shall comply with the criteria specified in the instruments referred to in Annex II.

5. <...>⁶

⁶ Not applicable in accordance with Article 2(1)(g) of Decision 2016/15/MC-EnC.

*Article 9***Approval of emission abatement methods for use on board ships flying the flag of a Contracting Party**

1. Emission abatement methods falling within the scope of Directive 96/98/EC shall be approved in accordance with that Directive.
2. Emission abatement methods not covered by paragraph 1 of this Article shall be approved in accordance with the procedure referred to in Article 3(2) of Regulation (EC) No 2099/2002, taking into account:
 - (a) guidelines developed by the IMO;
 - (b) the results of any trials conducted under Article 10;
 - (c) effects on the environment, including achievable emission reductions, and impacts on ecosystems in enclosed ports, harbours and estuaries; and
 - (d) the feasibility of monitoring and verification.

*Article 10***Trials of new emission abatement methods**

Contracting Parties may, in cooperation with other **Contracting Parties**, as appropriate, approve trials of ship emission abatement methods on vessels flying their flag, or in sea areas within their jurisdiction. During those trials, the use of marine fuels meeting the requirements of Articles 6 and 7 shall not be mandatory, provided that all of the following conditions are fulfilled:

- (a) the **Secretariat** and any port State concerned are notified in writing at least 6 months before trials begin;
- (b) permits for trials do not exceed 18 months in duration;
- (c) all ships involved install tamper-proof equipment for the continuous monitoring of funnel gas emissions and use it throughout the trial period;
- (d) all ships involved achieve emission reductions which are at least equivalent to those which would be achieved through the sulphur limits for fuels specified in this Directive;
- (e) there are proper waste management systems in place for any waste generated by the emission abatement methods throughout the trial period;
- (f) there is an assessment of impacts on the marine environment, particularly ecosystems in enclosed ports, harbours and estuaries throughout the trial period; and
- (g) full results are provided to the **Secretariat** and are made publicly available within 6 months of the end of the trials.

Article 11**Financial measures**

Contracting Parties may adopt financial measures in favour of operators affected by this Directive where such financial measures are in accordance with State aid rules applicable and to be adopted in this area.

Article 12**Change in the supply of fuels**

If, as a result of a sudden change in the supply of crude oil, petroleum products or other hydrocarbons, it becomes difficult for a **Contracting Party** to apply the limits on the maximum sulphur content referred to in Articles 3 and 4, that **Contracting Party** shall inform the **Secretariat** thereof. The **Secretariat** may authorise a higher limit to be applicable within the territory of that **Contracting Party** for a period not exceeding 6 months. It shall notify the **Ministerial Council** and the **Contracting Parties of its decision**. Any **Contracting Party** may refer that decision to the **Ministerial Council** within 1 month. The Ministerial Council, acting by a qualified majority, may adopt a different decision within 2 months.

Article 13**Sampling and analysis**

1. **Contracting Parties** shall take all necessary measures to check by sampling that the sulphur content of fuels used complies with Articles 3 to 7. The sampling shall commence <...> on the date on which the relevant limit for maximum sulphur content in the fuel comes into force. It shall be carried out **periodically** with sufficient frequency and **quantities such that** the samples are representative of the fuel examined, **and in the case of marine fuel, of the fuel being used by vessels while in relevant sea areas and ports. The samples shall be analysed without undue delay.**

2. **The following means of sampling, analysis and inspection of marine fuel shall be used:**

(a) **inspection of ships' logbooks and bunker delivery notes; and**

(b) **as appropriate, the following means of sampling and analysis:**

(i) **sampling of the marine fuel for on-board combustion while being delivered to ships, in accordance with the Guidelines for the sampling of fuel oil for determination of compliance with the revised Annex VI to MARPOL, adopted on 17 July 2009 by Resolution 182(59) of the Marine Environment Protection Committee (MEPC) of the IMO, and analysis of its sulphur content; or**

(ii) **sampling and analysis of the sulphur content of marine fuel for on-board combustion contained in tanks, where technically and economically feasible, and in sealed bunker samples on board ships.**

3. The reference method adopted for determining the sulphur content shall be ISO method 8754 (2003)

or EN ISO 14596:2007.

In order to determine whether marine fuel delivered to, and used on board, ships is compliant with the sulphur limits required by Articles 4 to 7, the fuel verification procedure set out in Appendix VI to Annex VI to MARPOL shall be used.

4. <...>⁷

Article 14

Reporting and review

1. Each year by 30 June, **Contracting Parties** shall, on the basis of the results of the sampling, analysis and inspections carried out in accordance with Article 13, submit a report to the **Secretariat** on the compliance with the sulphur standards set out in this Directive for the preceding year.

On the basis of the reports received in accordance with the first subparagraph of this paragraph and the notifications regarding the non-availability of marine fuel which complies with this Directive submitted by **Contracting Parties** in accordance with the fifth subparagraph of Article 6(8), the **Secretariat** shall, within 12 months of the date referred to in the first subparagraph of this paragraph, draw up and publish a report on the implementation of this Directive. The **Secretariat** shall evaluate the need for further strengthening of the relevant provisions of this Directive and make any appropriate legislative proposals to that effect.

2. By 31 December 2013, the **Secretariat** shall submit a report to the European Parliament and to the **Ministerial Council** which shall be accompanied, if appropriate, by legislative proposals. The **Secretariat** shall consider in its report the potential for reducing air pollution taking into account, *inter alia*: annual reports submitted in accordance with paragraphs 1 and 3; observed air quality and acidification; fuel costs; potential economic impact and observed modal shift; and progress in reducing emissions from ships.

3. <...>⁸

Article 15

Adaptation to scientific and technical progress

The **Secretariat** shall be empowered to adopt delegated acts in accordance with Article 16 concerning the adaptations of points (a) to (e) and (p) of Article 2, point (b)(i) of Article 13(2) and Article 13(3) to scientific and technical progress. Such adaptations shall not result in any direct changes to the scope of this Directive or to sulphur limits for fuels specified in this Directive.

Article 16

Exercise of the delegation

<...>

⁷ Not applicable in accordance with Article 2(1)(g) of Decision 2016/15/MC-EnC.

⁸ Not applicable in accordance with Article 2(1)(g) of Decision 2016/15/MC-EnC.

Article 17**Committee procedure**

<...>

Article 18**Penalties**

Contracting Parties shall determine the penalties applicable to breaches of the national provisions adopted pursuant to this Directive.

The penalties determined shall be effective, proportionate and dissuasive and may include fines calculated in such a way as to ensure that the fines at least deprive those responsible of the economic benefits derived from the infringement of the national provisions as referred to in the first paragraph and that those fines gradually increase for repeated infringements.

Article 19**Repeal**

1. Contracting Parties shall bring into force the laws, regulations and administrative provisions necessary to comply with Article 1(2), Article 2, Article 3(3), Articles 5 to 11, 13, 14 and 15 of Directive (EU) 2016/802 by 30 June 2018 at the latest and with Decision (EU) 2015/253 by 1 January 2018 at the latest.⁹ They shall forthwith communicate to the Energy Community Secretariat the text of those provisions.

When Contracting Parties adopt those provisions, they shall contain a reference to this Decision, Directive (EU) 2016/802 and Decision (EU) 2015/253 or be accompanied by such a reference on the occasion of their official publication. They shall also include a statement that references in existing laws, regulations and administrative provisions to Directive 93/12/EEC shall be construed as references to Directive (EU) 2016/802. Contracting Parties shall determine how such reference is to be made and how that statement is to be formulated.

2. Contracting Parties shall communicate to the Energy Community Secretariat the text of the main provisions of national law which they adopt in the field covered by this Decision, Directive (EU) 2016/802 and Decision (EU) 2015/253.¹⁰

⁹ Directive 1999/32/EC was applicable in the Energy Community until 30 June 2018, Contracting Parties were obliged to bring into force the laws, regulations and administrative provisions necessary to comply with that Directive until 31 December 2011 (in accordance with their Accession Protocols, 1 January 2012 for Ukraine, 31 December 2014 for Moldova and 1 September 2021 for Georgia).

¹⁰ The text displayed here corresponds to Article 4 of Decision 2016/15/MC-EnC.

Article 20
Entry into force

This Decision shall enter into force on the date of its adoption.¹¹

Article 21
Addressees

This Decision is addressed to the Contracting Parties of the Treaty establishing the Energy Community.¹²

¹³ The text displayed here corresponds to Article 5 of Decision 2016/15/MC-EnC.

¹² The text displayed here corresponds to Article 6 of Decision 2016/15/MC-EnC.

ANNEX I

EQUIVALENT EMISSION VALUES FOR EMISSION ABATEMENT METHODS AS REFERRED TO IN ARTICLE 8(2)

Marine fuel sulphur limits referred to in Articles 6 and 7 of this Directive and Regulations 14.1 and 14.4 of Annex VI to MARPOL and corresponding emission values referred to in Article 8(2):

Marine fuel Sulphur Content (% m/m)	Ratio Emission SO₂ (ppm)/CO₂ (% v/v)
3,50	151,7
1,50	65,0
1,00	43,3
0,50	21,7
0,10	4,3

Note:

- the use of the Ratio Emissions limits is only applicable when using petroleum-based distillate or residual fuel oils,
- in justified cases where the CO₂ concentration is reduced by the exhaust gas cleaning (EGC) unit, the CO₂ concentration may be measured at the EGC unit inlet, provided that the correctness of such a methodology can be clearly demonstrated.

ANNEX II

CRITERIA FOR THE USE OF EMISSION ABATEMENT METHODS AS REFERRED TO IN ARTICLE 8(4)

The emission abatement methods referred to in Article 8 shall comply at least with the criteria specified in the following instruments, as applicable:

Emission abatement method	Criteria for use
Mixture of marine fuel and boil-off gas	Commission Decision 2010/769/EU. ¹³
Exhaust gas cleaning systems	Resolution MEPC.184(59) adopted on 17 July 2009 Washwater resulting from exhaust gas cleaning systems which make use of chemicals, additives, preparations and relevant chemicals created <i>in situ</i> , referred to in point 10.1.6.1 of Resolution MEPC.184(59), shall not be discharged into the sea, including enclosed ports, harbours and estuaries, unless it is demonstrated by the ship operator that such washwater discharge has no significant negative impacts on and does not pose risks to human health and the environment. If the chemical used is caustic soda it is sufficient that the washwater meets the criteria set out in Resolution MEPC.184(59) and its pH does not exceed 8,0.
Biofuels	Use of biofuels as defined in Directive 2009/28/EC of the European Parliament and of the Council ¹⁴ that comply with the relevant CEN and ISO standards. The mixtures of biofuels and marine fuels shall comply with the sulphur standards set out in Article 5, Article 6(1), (2) and (5) and Article 7 of this Directive.

¹³ Commission Decision 2010/769/EU of 13 December 2010 on the establishment of criteria for the use by liquefied natural gas carriers of technological methods as an alternative to using low sulphur marine fuels meeting the requirements of Article 4b of Council Directive 1999/32/EC relating to a reduction in the sulphur content of certain liquid fuels as amended by Directive 2005/33/EC of the European Parliament and of the Council on the sulphur content of marine fuels (OJ L328, 14.12.2010, p. 15).

¹⁴ Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (OJ L140, 5.6.2009, p. 16).