

## **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.

*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**.*

Whereas:

- (1) Council Directive 1999/32/EC has been substantially amended several times. In the interests of clarity and rationality, that Directive should be codified.
- (2) The environmental policy of the Union, as set out in the action programmes on the environment, and in particular in the Sixth Environment Action Programme adopted by Decision No 1600/2002/EC of the European Parliament and of the Council, and in the Seventh Environment Action Programme adopted by Decision No 1386/2013/EU of the European Parliament and of the Council, has as one of its objectives to achieve levels of air quality that do not give rise to significant negative impacts on, and risks to, human health and the environment.
- (3) Article 191(2) of the Treaty on the Functioning of the European Union (TFEU) provides that Union policy on the environment is to aim at a high level of protection, taking into account the diversity of situations in the various regions of the Union.
- (4) This Directive lays down the maximum permitted sulphur content of heavy fuel oil, gas oil, marine gas oil and marine diesel oil used in the Union.
- (5) Emissions from shipping due to the combustion of marine fuels with a high sulphur content contribute to air pollution in the form of sulphur dioxide and particulate matter, which harm human health and the environment and contribute to acid deposition. Without the measures set out in this Directive, emissions from shipping would soon have been higher than emissions from all land-based sources.
- (6) Acidification and atmospheric sulphur dioxide damage sensitive ecosystems, reduce biodiversity and amenity value and detrimentally affect crop production and the growth of forests. Acid rain falling in cities may cause significant damage to buildings and the architectural heritage. Sulphur dioxide pollution may also have a significant effect upon human health, particularly among those sectors of the population suffering from respiratory diseases.
- (7) Acidification is a transboundary phenomenon requiring Union as well as national or local solutions.
- (8) Emissions of sulphur dioxide contribute to the formation of particulate matter in the atmosphere.
- (9) Air pollution caused by ships at berth is a major concern for many harbour cities when it comes to their efforts to meet the Union's air quality limit values.
- (10) Member States should encourage the use of shore-side electricity, as the electricity for pres-

ent-day ships is usually provided by auxiliary engines.

(11) The Union and the individual Member States are Contracting Parties to the UN-ECE Convention of 13 November 1979 on Long-Range Transboundary Air Pollution. The second UN-ECE Protocol on transboundary pollution by sulphur dioxide stipulates that the Contracting Parties should reduce sulphur dioxide emissions in line with or beyond the 30% reduction specified in the first Protocol, and the second UN-ECE Protocol is based on the premise that critical loads and levels will continue to be exceeded in some sensitive areas. Further measures to reduce sulphur dioxide emissions will still be required. The Contracting Parties should therefore make further significant reductions in emissions of sulphur dioxide.

(12) Sulphur, which is naturally present in small quantities in oil and coal, has for decades been recognised as the dominant source of sulphur dioxide emissions, which are one of the main causes of 'acid rain' and one of the major causes of the air pollution experienced in many urban and industrial areas.

(13) Studies have shown that the benefits from reducing sulphur emissions by reductions in the sulphur content of fuels will often be considerably greater than the estimated costs to industry in this Directive. The technology exists and is well established for reducing the sulphur level of liquid fuels.

(14) In accordance with Article 193 TFEU, this Directive should not prevent any Member State from maintaining or introducing more stringent protective measures in order to encourage early implementation with respect to the maximum sulphur content of marine fuels, for instance using emission abatement methods outside SO<sub>x</sub> Emission Control Areas. Such measures are required to be compatible with the Treaties and are to be notified to the Commission.

(15) A Member State, before introducing new, more stringent protective measures, should notify the draft measures to the Commission in accordance with Directive (EU) 2015/1535 of the European Parliament and of the Council.

(16) The TFEU requires consideration to be given to the special characteristics of the outermost regions of the Union, namely the French overseas departments, the Azores, Madeira and the Canary Islands.

(17) With regard to the limit on the sulphur content of heavy fuel oil, it is appropriate to provide for derogations in Member States and regions where the environmental conditions so allow.

(18) With regard to the limit on the sulphur content of heavy fuel oil, it is also appropriate to provide for derogations for their use in combustion plants which comply with the emission limit values laid down in Directive 2001/80/EC of the European Parliament and of the Council, or in Annex V to Directive 2010/75/EU of the European Parliament and of the Council.

(19) For refinery combustion plants excluded from the scope of point (d) of Article 3(2) or point (c) of Article 3(3) of this Directive the emissions of sulphur dioxide averaged over such plants should not exceed the limits set out in Directive 2001/80/EC, or Annex V to Directive 2010/75/EU, or any future revision of those Directives. In the application of this Directive, Member States should bear in mind that substitution by fuels other than those referred to in Article 2 should not produce an increase in emissions of acidifying pollutants.

(20) In 2008, the International Maritime Organisation (IMO) adopted a resolution to amend Annex VI to 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 (MARPOL), containing regulations

for the prevention of air pollution from ships. The revised Annex VI to MARPOL entered into force on 1 July 2010.

(21) The revised Annex VI to MARPOL introduces, *inter alia*, stricter sulphur limits for marine fuel in SO<sub>x</sub> Emission Control Areas (1,00% as of 1 July 2010 and 0,10% as of 1 January 2015) as well as in sea areas outside SO<sub>x</sub> Emission Control Areas (3,50% as of 1 January 2012 and, in principle, 0,50% as of 1 January 2020). Most Member States are obliged, in accordance with their international commitments, to require ships to use fuel with a maximum sulphur content of 1,00% in SO<sub>x</sub> Emission Control Areas as of 1 July 2010. In order to ensure coherence with international law as well as to secure proper enforcement of new globally established sulphur standards in the Union, this Directive should be in line with the revised Annex VI to MARPOL. In order to ensure a minimum quality of fuel used by ships either for fuel-based or technology-based compliance, marine fuel the sulphur content of which exceeds the general standard of 3,50% by mass should not be allowed for use in the Union, except for fuels supplied to ships using emission abatement methods operating in closed mode.

(22) Amendments to Annex VI to MARPOL regarding SO<sub>x</sub> Emission Control Areas are possible under IMO procedures. In the event that further changes, including exemptions, are introduced with regard to the application of limits for SO<sub>x</sub> Emission Control Areas in Annex VI to MARPOL, the Commission should consider any such changes and, where appropriate, without delay make the necessary proposal in accordance with the TFEU to fully align this Directive with the IMO rules regarding SO<sub>x</sub> Emission Control Areas.

(23) The introduction of any new emission control areas should be subject to the IMO process under Annex VI to MARPOL and should be underpinned by a well-founded case based on environmental and economic grounds and supported by scientific data.

(24) In accordance with Regulation 18 of the revised Annex VI to MARPOL, Member States should endeavour to ensure the availability of marine fuels which comply with this Directive.

(25) In view of the global dimension of environmental politics and shipping emissions, ambitious emission standards should be set at a global level.

(26) The Union will continue to advocate more effective protection of areas sensitive to SO<sub>x</sub> emissions and a reduction in the normal limit value for bunker fuel oil at the IMO.

(27) Passenger ships operate mostly in ports or close to coastal areas and their impacts on human health and the environment are significant. In order to improve air quality around ports and coasts, those ships are required to use marine fuel with a maximum sulphur content of 1,50% until stricter sulphur standards apply to all ships in territorial seas, exclusive economic zones and pollution control zones of Member States.

(28) In order to facilitate the transition to new engine technologies with the potential for significant further emission reductions in the maritime sector, the Commission should further explore opportunities to enable and encourage the uptake of gas-powered engines in ships.

(29) Proper enforcement of the obligations with regard to the sulphur content of marine fuels is necessary in order to achieve the aims of this Directive. The experience from the implementation of Directive 1999/32/EC has shown that there is a need for a stronger monitoring and enforcement regime in order to ensure the proper implementation of this Directive. To that end, it is necessary that Member States ensure sufficiently frequent and accurate sampling of marine fuel placed on the market or used on board ship as well as regular verification of ships' logbooks and bunker delivery notes. It is also necessary for Member States to establish a system of effective, proportionate and

dissuasive penalties for non-compliance with the provisions of this Directive. In order to ensure more transparent information, it is also appropriate to provide that the register of local suppliers of marine fuel be made publicly available.

(30) Complying with the low sulphur limits for marine fuels, particularly in SO<sub>x</sub> Emission Control Areas, can result in a significant increase in the price of such fuels, at least in the short term, and can have a negative effect on the competitiveness of short sea shipping in comparison with other transport modes, as well as on the competitiveness of the industries in the countries bordering SO<sub>x</sub> Emission Control Areas. Suitable solutions are necessary in order to reduce compliance costs for the affected industries, such as allowing for alternative, more cost-effective methods of compliance than fuel-based compliance and providing support, where necessary. The Commission should, based, *inter alia*, on reports from Member States, closely monitor the impacts of the shipping sector's compliance with the new fuel quality standards, particularly with regard to possible modal shift from sea to land-based transport and should, if appropriate, propose proper measures to counteract such a trend.

(31) Limiting modal shift from sea to land-based transport is important given that an increasing share of goods being transported by road would in many cases run counter to the Union's climate change objectives and increase congestion.

(32) The costs of the new requirements to reduce sulphur dioxide emissions could result in modal shift from sea to land-based transport and could have negative effects on the competitiveness of the industries. The Commission should make full use of instruments such as Marco Polo and the trans-European transport network to provide targeted assistance so as to minimise the risk of modal shift. Member States may consider it necessary to provide support to operators affected by this Directive in accordance with the applicable State aid rules.

(33) In accordance with existing guidelines on State aid for environmental protection, and without prejudice to future changes thereto, Member States may provide State aid in favour of operators affected by this Directive, including aid for retrofitting operations of existing vessels, if such aid measures are deemed to be compatible with the internal market in accordance with Articles 107 and 108 TFEU, in particular in light of the applicable guidelines on State aid for environmental protection. In this context, the Commission may take into account that the use of some emission abatement methods go beyond the requirements of this Directive by reducing not only the sulphur dioxide emissions but also other emissions.

(34) Access to emission abatement methods should be facilitated. Those methods can provide emission reductions at least equivalent to, or even greater than, those achievable using low sulphur fuel, provided that they have no significant negative impacts on the environment, such as marine ecosystems, and that they are developed subject to appropriate approval and control mechanisms. The already known alternative methods, such as the use of on-board exhaust gas cleaning systems, the mixture of fuel and liquefied natural gas or the use of biofuels should be recognised in the Union. It is important to promote the testing and development of new emission abatement methods in order, among other reasons, to limit modal shift from sea to land-based transport.

(35) Emission abatement methods hold the potential for significant emission reductions. The Commission should therefore promote the testing and development of such technologies, *inter alia*, by considering the establishment of a co-financed joint programme with industry, based on principles from similar programmes, such as the Clean Sky Programme.

(36) The Commission, in cooperation with Member States and stakeholders, should further develop measures identified in the Commission's Staff Working Paper of 16 September 2011 entitled 'Pollutant emission reduction from maritime transport and the sustainable waterborne transport toolbox'.

(37) In the case of a disruption in the supply of crude oil, petroleum products or other hydrocarbons, the Commission may authorise the application of a higher limit within a Member State's territory.

(38) Member States should establish the appropriate mechanisms for monitoring compliance with the provisions of this Directive. Reports on the sulphur content of liquid fuels should be submitted to the Commission.

(39) This Directive should contain detailed indications as regards the content and the format of the report to ensure harmonised reporting.

(40) The power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission in respect of the amendment of the equivalent emission values for, and the criteria for the use of, emission abatement methods laid down in Annexes I and II to this Directive, in order to adapt them to scientific and technical progress in such a way as to ensure strict consistency with the relevant instruments of the IMO, and in respect of the amendment of points (a) to (e) and (p) of Article 2, point (b)(i) of Article 13(2) and Article 13(3) of this Directive in order to adapt those provisions to scientific and technical progress. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level. The Commission, when preparing and drawing up delegated acts, should ensure a simultaneous, timely and appropriate transmission of relevant documents to the European Parliament and to the Council.

(41) In order to ensure uniform conditions for the implementation of this Directive, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council.

(42) It is appropriate for the Committee on Safe Seas and the Prevention of Pollution from Ships (COSS) established by Regulation (EC) No 2099/2002 of the European Parliament and of the Council to assist the Commission in the approval of the emission abatement methods which are not covered by Council Directive 96/98/EC.

(43) Effective, proportionate and dissuasive penalties are important for the implementation of this Directive. Member States should include in those penalties fines calculated in such a way as to ensure that the fines at least deprive those responsible of the economic benefits derived from their infringement and that those fines gradually increase for repeated infringements. Member States should notify the provisions on penalties to the Commission.

(44) This Directive should be without prejudice to the obligations of the Member States relating to the time limits for the transposition into national law of the Directives set out in Annex III, Part B,

## **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 petrole-

um-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) <...><sup>1</sup>
- (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;
- (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

<sup>1</sup> 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.

(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<sub>x</sub> 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) <...><sup>2</sup>

(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. <...> **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/Nm<sup>3</sup> 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/Nm<sup>3</sup> 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/Nm<sup>3</sup> 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**

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

**not exceed 1 700 mg/Nm<sup>3</sup>** 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/Nm<sup>3</sup>** 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/Nm<sup>3</sup>** 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.

4. <...>

5. If a **Contracting Party** avails itself of the possibilities referred to in paragraph 2, it shall, at least 12 months beforehand, inform the **Secretariat** and the public. The **Secretariat** shall be given sufficient information to assess whether the criteria mentioned in paragraph 2 are met. The **Secretariat** shall inform the other **Contracting Parties**.

Within six months of the date on which it receives the information from the **Contracting Party**, the **Secretariat** shall examine the measures envisaged and, in accordance with the procedure set out in Article 9, take a decision which it shall communicate to the **Contracting Parties**. This decision shall be reviewed every eight years on the basis of information to be provided to the **Secretariat** by the **Contracting Parties** concerned in accordance with the procedure set out in Article 9.<sup>3</sup>

#### **Article 4**

##### **Maximum sulphur content in gas oil**

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

2. <...>

3. Provided that the air quality standards for sulphur dioxide laid down in Directive 80/779/EEC or in any Community legislation which repeals and replaces these standards and other relevant Community provisions are respected and the emissions do not contribute to critical loads being exceeded in any **Contracting Party**, a **Contracting Party** may authorise gas oil with a sulphur content between 0,10 and 0,20% by mass to be used in part or the whole of its territory. Such authorisation shall apply only while emissions from a **Contracting Party** do not contribute to critical loads being exceeded in any **Contracting Party** and shall not extend beyond 1 January 2013.

4. If a **Contracting Party** avails itself of the possibilities referred to in paragraph 3, it shall, at least 12 months beforehand, inform the **Secretariat** and the public. The **Secretariat** shall be given sufficient information to assess whether the criteria mentioned in paragraph 3 are met. The **Secretariat** shall inform the other **Contracting Parties**.

Within six months of the date on which it receives the information from the **Contracting Party**, the

<sup>3</sup> According to Article 4(1) of Decision 2016/15/MC-EnC, this provision is applicable until 30 June 2018 in the Energy Community.

**Secretariat** shall examine the measures envisaged and, in accordance with the procedure set out in Article 9, take a decision which it shall communicate to the **Contracting Parties**.<sup>4</sup>

### 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<sub>x</sub> 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)<sup>5</sup>;

(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<sub>x</sub> Emission Control Areas if the sulphur content of those fuels by mass exceeds:

(a) <...>;<sup>6</sup>

(b) 0,10% as from 1 January 2015, in accordance with Article 6(3).<sup>7</sup>

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<sub>x</sub> Emission Control Areas, and, where appropriate, without undue delay make any relevant proposals with a view to amending this

<sup>4</sup> According to Article 4(1) of Decision 2016/15/MC-EnC, this provision is applicable until 30 June 2018 in the Energy Community.

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

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

<sup>7</sup> The text displayed here corresponds to point (f) of Article 2(1) of Decision 2016/15/MC-EnC.

Directive accordingly.

3. The application date for paragraph 2 for any new sea areas, including ports, designated by the IMO as SO<sub>x</sub> 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
- in the case of **Contracting Parties** bordering SO<sub>x</sub> 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<sub>x</sub> 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. <...><sup>8</sup>

#### *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;

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

- (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. <...><sup>9</sup>

#### 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. <...><sup>10</sup>

<sup>9</sup> Not applicable in accordance with Article 2(1)(g) of Decision 2016/15/MC-EnC.

<sup>10</sup> Not applicable in accordance with Article 2(1)(g) of Decision 2016/15/MC-EnC.

**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**

&lt;...&gt;

**Article 17****Committee procedure**

&lt;...&gt;

**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.<sup>11</sup> 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 ref-**

<sup>11</sup> Until 30 June 2018, Directive 1999/32/EC is applicable in the Energy Community. 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).

erence 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.<sup>12</sup>

#### ***Article 20***

#### **Entry into force**

This Decision shall enter into force on the date of its adoption.<sup>13</sup>

#### ***Article 21***

#### **Addressees**

This Decision is addressed to the Contracting Parties of the Treaty establishing the Energy Community.<sup>14</sup>

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<sup>12</sup> The text displayed here corresponds to Article 4 of Decision 2016/15/MC-EnC.

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

<sup>14</sup> 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 SO <sub>2</sub> (ppm)/CO <sub>2</sub> (% 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 CO<sub>2</sub> concentration is reduced by the exhaust gas cleaning (EGC) unit, the CO<sub>2</sub> 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 <sup>1</sup> .
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 <sup>2</sup> 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.

<sup>1</sup> 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).

<sup>2</sup> 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).