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COUNCIL DIRECTIVE 1999/32/EC

of 26 April 1999

relating to a reduction in the sulphur content of certain liquid fuels and amending Directive 93/12/EEC

(OJ L 121, 11.5.1999, p. 13)

Amended by:

		Official Journal		
		No	page	date
► <u>M1</u>	Regulation (EC) No 1882/2003 of the European Parliament and of the Council of 29 September 2003	L 284	1	31.10.2003
► <u>M2</u>	Directive 2005/33/EC of the European Parliament and of the Council of 6 July 2005	L 191	59	22.7.2005
► <u>M3</u>	Regulation (EC) No 219/2009 of the European Parliament and of the Council of 11 March 2009	L 87	109	31.3.2009
► <u>M4</u>	Directive 2009/30/EC of the European Parliament and of the Council of 23 April 2009	L 140	88	5.6.2009



COUNCIL DIRECTIVE 1999/32/EC

of 26 April 1999

**relating to a reduction in the sulphur content of certain liquid fuels
and amending Directive 93/12/EEC**

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 130s(1) thereof,

Having regard to the proposal from the Commission ⁽¹⁾,

Having regard to the opinion of the Economic and Social Committee ⁽²⁾,

Acting in accordance with the procedure laid down in Article 189c of the Treaty ⁽³⁾,

- (1) Whereas the objectives and principles of the Community's environmental policy as set out in the action programmes on the environment and in particular the Fifth Environmental Action Programme ⁽⁴⁾ on the basis of principles enshrined in Article 130r of the Treaty, aim in particular to ensure the effective protection of all people from the recognised risks from sulphur dioxide emissions and to protect the environment by preventing sulphur deposition exceeding critical loads and levels;
- (2) Whereas Article 129 of the Treaty provides that health protection requirements are to form a constituent part of the Community's other policies; whereas Article 3(o) of the Treaty also provides that the activities of the Community should include a contribution to the attainment of a high level of health protection;
- (3) Whereas emissions of sulphur dioxide contribute significantly to the problem of acidification in the Community; whereas sulphur dioxide also has a direct effect on human health and on the environment;
- (4) Whereas acidification and atmospheric sulphur dioxide damage sensitive ecosystems, reduce biodiversity and reduce amenity value as well as detrimentally affecting crop production and the growth of forests; whereas acid rain falling in cities may cause significant damage to buildings and the architectural heritage; whereas sulphur dioxide pollution may also have a significant effect upon human health, particularly among those sectors of the population suffering from respiratory diseases;
- (5) Whereas acidification is a transboundary phenomenon requiring Community as well as national or local solutions;
- (6) Whereas emissions of sulphur dioxide contribute to the formation of particulate matter in the atmosphere;
- (7) Whereas the Community and the individual Member States are Contracting Parties to the UN-ECE Convention on Long-Range Transboundary Air Pollution; whereas the second UN-ECE Protocol on transboundary pollution by sulphur dioxide foresees

⁽¹⁾ OJ C 190, 21.6.1997, p. 9, and OJ C 259, 18.8.1998, p. 5.

⁽²⁾ OJ C 355, 21.11.1997, p. 1.

⁽³⁾ Opinion of the European Parliament of 13 May 1998 (OJ C 167, 1.6.1998, p. 111), Council Common Position of 6 October 1998 (OJ C 364, 25.11.1998, p. 20) and Decision of the European Parliament of 9 February 1999 (not yet published in the Official Journal).

⁽⁴⁾ OJ C 138, 17.5.1993, p. 5.

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that the Contracting Parties should reduce sulphur dioxide emissions in line with or beyond the 30 % reduction specified in the first Protocol and whereas the second UN-ECE Protocol is based on the premise that critical loads and levels will continue to be exceeded in some sensitive areas; whereas further measures to reduce sulphur dioxide emissions will still be required if the objectives in the Fifth Environmental Action Programme are to be respected; whereas the Contracting Parties should therefore make further significant reductions in emissions of sulphur dioxide;

- (8) Whereas 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;
- (9) Whereas the Commission has recently published a communication on a cost-effective strategy to combat acidification in the Community; whereas the control of sulphur dioxide emissions originating from the combustion of certain liquid fuels was identified as being an integral component of this cost-effective strategy; whereas the Community recognises the need for measures regarding all other fuels;
- (10) Whereas studies have shown that 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 and whereas the technology exists and is well established for reducing the sulphur level of liquid fuels;
- (11) Whereas, in conformity with the principle of subsidiarity and the principle of proportionality referred to in Article 3b of the Treaty, the objective of reducing the emissions of sulphur dioxide arising from the combustion of certain types of liquid fuels cannot be achieved effectively by Member States acting individually; whereas uncoordinated action offers no guarantee of achieving the desired objective, is potentially counterproductive and will result in considerable uncertainty in the market for the fuel products affected; whereas, in view of the need to reduce sulphur dioxide emissions across the Community, it is therefore more effective to take action at the level of the Community; whereas this Directive limits itself to the minimum requirements necessary to achieve the desired objective;
- (12) Whereas in Council Directive 93/12/EEC of 23 March 1993 relating to the sulphur content of certain liquid fuels⁽¹⁾ the Commission was asked to submit to the Council a proposal prescribing lower limits for the sulphur content in gas oil and new limits for aviation kerosene; whereas it would be appropriate to lay down limits for the sulphur content of other liquid fuels, in particular heavy fuel oils, bunker fuel oils, marine gas oils and gas oils, on the basis of cost effectiveness studies;
- (13) Whereas, in accordance with Article 130t of the Treaty, this Directive should not prevent any Member State from maintaining or introducing more stringent protective measures; whereas such measures must be compatible with the Treaty and should be notified to the Commission;
- (14) Whereas a Member State, before introducing new, more stringent protective measures, should notify the draft measures to the Commission in accordance with Council Directive 83/189/EEC of 28 March 1983 laying down a procedure for the provision of information in the field of technical standards and regulations⁽²⁾;

⁽¹⁾ OJ L 74, 27.3.1993, p. 81.

⁽²⁾ OJ L 109, 26.4.1983, p. 8. Directive as last amended by Commission Decision 96/139/EC (OJ L 32, 10.2.1996, p. 31).

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- (15) Whereas, 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 allow;
- (16) Whereas, 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 Council Directive 88/609/EEC of 24 November 1988 ⁽¹⁾ on the limitation of emissions of certain pollutants into the air from large combustion plants; whereas in the light of the forthcoming revision of Directive 88/609/EEC, it may be necessary to review and, if appropriate, to revise certain provisions of this Directive;
- (17) Whereas for refinery combustion plants excluded from the scope of Article 3(3)(i)(c) of this Directive the emissions of sulphur dioxide averaged over such plants should not exceed the limits set out in Directive 88/609/EEC or any future revision of that Directive; whereas, in the application of this Directive, Member States should bear in mind that substitution by fuels other than those pursuant to Article 2 should not produce an increase in emissions of acidifying pollutants;
- (18) Whereas a limit value of 0,2 % for the sulphur content of gas oils has already been established pursuant to Directive 93/12/EEC; whereas that limit value should be changed to 0,1 % until 1 January 2008;
- (19) Whereas, in accordance with the 1994 Act of Accession, Austria and Finland have a derogation for a period of four years from the date of accession regarding the provisions in Directive 93/12/EEC concerning the sulphur content of gas oil;
- (20) Whereas the limit values of 0,2 % (from the year 2000) and of 0,1 % (from the year 2008) for the sulphur content of gas oils intended for marine use in sea-going ships may present technical and economic problems for Greece throughout its territory, for Spain with regard to the Canary Islands, for France with regard to the French Overseas Departments, and for Portugal with regard to the archipelagoes of Madeira and Azores; whereas a derogation for Greece, the Canary Islands, the French Overseas Departments and the Archipelagoes of Madeira and Azores should not have a negative effect upon the market in gas oil intended for marine use and given that exports of gas oil for marine use from Greece, the Canary Islands, the French Overseas Departments and the Archipelagoes of Madeira and Azores to other Member States should satisfy the requirements in force in the importing Member State; whereas Greece, the Canary Islands, the French Overseas Departments and the Archipelagoes of Madeira and Azores should therefore be afforded a derogation from the limit values of sulphur by weight for gas oil used for marine purposes;
- (21) Whereas sulphur emissions from shipping due to the combustion of bunker fuels with a high sulphur content contribute to sulphur dioxide pollution and problems of acidification; whereas the Community will be advocating more effective protection of areas sensitive to SO_x emissions and a reduction in the normal limit value for bunker fuel oil (from the present 4,5 %) at the continuing and future negotiations on the MARPOL Convention within the International Maritime Organisation (IMO); whereas the Community initiatives to have the North Sea/Channel declared a special low SO_x emission control area should be continued;
- (22) Whereas more profound research into the effects of acidification on ecosystems and the human body is needed; whereas the

⁽¹⁾ OJ L 336, 7.12.1988, p. 1. Directive as last amended by Directive 94/66/EC (OJ L 337, 24.12.1994, p. 83).

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Community is assisting such research under the Fifth Framework Research Programme ⁽¹⁾;

- (23) Whereas in the case of a disruption in the supply of crude oil, petroleum products or other hydrocarbons, the Commission may authorise application of a higher limit within a Member State's territory;
- (24) Whereas Member States should establish the appropriate mechanisms for monitoring compliance with the provisions of this Directive; whereas reports on the sulphur content of liquid fuels should be submitted to the Commission;
- (25) Whereas, for reasons of clarity, it will be necessary to amend Directive 93/12/EEC,

HAS ADOPTED THIS DIRECTIVE:

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.

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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 Member States' 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) fuels used and placed on the market in the outermost regions of the Community provided that the relevant Member States ensure that, in those regions:
- air quality standards are respected,
 - heavy fuel oils are not used if their sulphur content exceeds 3 % by mass;
- (e) fuels used by warships and other vessels on military service. However, each Member State shall endeavour to ensure, by the adoption of appropriate measures not impairing the operations or operational capability of such ships, that these 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 to 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;

⁽¹⁾ OJ L 26, 1.2.1999, p. 1.

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- (h) fuels used on board vessels employing approved emission abatement technologies in accordance with Article 4c.

▼ B*Article 2***Definitions**

For the purpose of this Directive:

1. *heavy fuel oil* means:

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- any petroleum-derived liquid fuel, excluding marine fuel, falling within CN code 2710 19 51 to 2710 19 69, or

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- any petroleum-derived liquid fuel, other than gas oil as defined in points 2 and 3, 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;

2. ► M2 *gas oil* means:

- any petroleum-derived liquid fuel, excluding marine fuel, falling within CN code 2710 19 25, 2710 19 29, 2710 19 45 or 2710 19 49, or
- 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 Article 2(2) of Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC ⁽¹⁾ are excluded from this definition. Fuels used in non-road mobile machinery and agricultural tractors are also excluded from this definition;

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3. *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 in Directive 97/68/EC of the European Parliament and of the Council of 16 December 1997 on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery ⁽²⁾ and Directive 94/25/EC of the European Parliament and of the Council of 16 June 1994 on the approximation of the laws, regulations and administrative provisions of the Member States relating to recreational craft ⁽³⁾, when such vessels are at sea;

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- 3a. *marine diesel oil* means any marine fuel which has a viscosity or density falling within the ranges of viscosity or density defined for DMB and DMC grades in Table I of ISO 8217;
- 3b. *marine gas oil* means any marine fuel which has a viscosity or density falling within the ranges of viscosity or density defined for DMX and DMA grades in Table I of ISO 8217;

⁽¹⁾ OJ L 350, 28.12.1998, p. 58.

⁽²⁾ OJ L 59, 27.2.1998, p. 1.

⁽³⁾ OJ L 164, 30.6.1994, p. 15.

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- 3c. *MARPOL* means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto;
- 3d. *Annex VI to MARPOL* means the annex, entitled ‘Regulations for the Prevention of Air Pollution from Ships’, that the Protocol of 1997 adds to MARPOL;
- 3e. *Ox Emission Control Areas* means sea areas defined as such by the IMO under Annex VI to MARPOL;
- 3f. *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 one year of age;
- 3g. *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;
- 3h. *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;
- 3i. *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;

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- 3k. *placing on the market* means supplying or making available to third persons, against payment or free of charge, anywhere within Member States' jurisdictions, marine fuels for on-board combustion. It excludes supplying or making available marine fuels for export in ships' cargo tanks;
- 3l. *outermost regions* means the French overseas departments, the Azores, Madeira and the Canary Islands, as set out in Article 299 of the Treaty;
- 3m. *emission abatement technology* means an exhaust gas cleaning system, or any other technological method that is verifiable and enforceable;

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4. *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;
5. *combustion plant* means any technical apparatus in which fuels are oxidised in order to use the heat generated.

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▼ M2*Article 3***Maximum sulphur content of heavy fuel oil**

1. Member States shall take all necessary steps to ensure that, as from 1 January 2003, heavy fuel oils are not used within their territory if their sulphur content exceeds 1 % by mass.
2. (i) Subject to appropriate monitoring of emissions by competent authorities this requirement shall not apply to heavy fuel oils used:
 - (a) in combustion plants which fall within the scope of Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants ⁽¹⁾, which are considered new in accordance with the definition given in Article 2(9) thereof and which comply with the sulphur dioxide emission limits for such plants set out in Annex IV to that Directive and applied in accordance with Article 4 thereof;
 - (b) in combustion plants which fall within the scope of Directive 2001/80/EC, which are considered existing in accordance with the definition given in Article 2(10) thereof, where the sulphur dioxide emissions from these combustion plants are equal to or less than 1 700 mg/Nm³ at an oxygen content in the flue gas of 3 % by volume on a dry basis, and where, from 1 January 2008, the emissions of sulphur dioxide from combustion plants subject to Article 4(3)(a) of Directive 2001/80/EC are equal to or less than those resulting from compliance with the emission limit values for new plants contained in Part A of Annex IV to that Directive and where appropriate applying Articles 5, 7 and 8 thereof;
 - (c) in other combustion plants which do not fall under (a) or (b), where the sulphur dioxide emissions from those combustion plants 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 plants in the refinery, irrespective of the type of fuel or fuel combination used, is within a limit to be set by each Member State, which shall not exceed 1 700 mg/Nm³. This shall not apply to combustion plants which fall under (a) or, from 1 January 2008, to those which fall under (b).
- (ii) Member States shall take the necessary measures to ensure that any combustion plant using heavy fuel oil with a sulphur concentration greater than that referred to in paragraph 1 is not operated without a permit issued by a competent authority, which specifies the emission limits.
3. The provisions of paragraph 2 shall be reviewed and, if appropriate, amended in the light of any future amendment of Directive 2001/80/EC.

⁽¹⁾ OJ L 309, 27.11.2001, p. 1. Directive as amended by the 2003 Act of Accession.

▼B*Article 4***Maximum sulphur content in gas oil**

1. Member States shall take all necessary steps to ensure that gas oils, including marine gas oils, are not used within their territory as from:

- July 2000 if their sulphur content exceeds 0,20 % by mass,
- 1 January 2008 if their sulphur content exceeds 0,10 % by mass.

2. By way of derogation from paragraph 1, Spain, for the Canary Islands, France, for the French Overseas Departments, Greece, for the whole or part of its territory, and Portugal, for the archipelagoes of Madeira and Azores may authorise the use of gas oils for marine use with a sulphur content in excess of the limits set out in paragraph 1.

▼M2*Article 4a***Maximum sulphur content of marine fuels used in SO_x Emission Control Areas and by passenger ships operating on regular services to or from Community ports**

1. Member States 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 exceeds 1,5 % by mass. This shall apply to all vessels of all flags, including vessels whose journey began outside the Community.

2. The application dates for paragraph 1 shall be as follows:

- (a) for the Baltic Sea area referred to in regulation 14(3)(a) of Annex VI to MARPOL, 11 August 2006;
- (b) for the North Sea:
 - 12 months after entry into force of the IMO designation, according to established procedures, or
 - 11 August 2007,
 whichever is the earlier;
- (c) for any other sea areas, including ports, that the IMO subsequently designates as SO_x Emission Control Areas in accordance with regulation 14(3)(b) of Annex VI to MARPOL: 12 months after the date of entry into force of the designation.

3. Member States shall be responsible for the enforcement of paragraph 1 at least in respect of:

- vessels flying their flag, and
- in the case of Member States bordering SO_x Emission Control Areas, vessels of all flags while in their ports.

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

4. From the date referred to in paragraph 2(a), Member States shall take all necessary measures to ensure that marine fuels are not used in their territorial seas, exclusive economic zones and pollution control zones by passenger ships operating on regular services to or from any Community port if the sulphur content of those fuels exceeds 1,5 % by mass. Member States 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.

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5. From the date referred to in paragraph 2(a), Member States shall require the correct completion of ships' logbooks, including fuel-changeover operations, as a condition of ships' entry into Community ports.

6. From the date referred to in paragraph 2(a), and in accordance with Regulation 18 of Annex VI to MARPOL, Member States shall:

- maintain a register of local suppliers of marine fuel,
- 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,
- take action as appropriate against marine fuel suppliers that have been found to deliver fuel that does not comply with the specification stated on the bunker delivery note,
- ensure that remedial action as appropriate is taken to bring any non-compliant marine fuel discovered into compliance.

7. From the date referred to in paragraph 2(a), Member States 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 1,5 % by mass.

8. The Commission shall notify Member States of the application dates mentioned in paragraph 2(b) and publish them in the *Official Journal of the European Union*.

Article 4b▼ M4**Maximum sulphur content of marine fuels used by ships at berth in Community ports**▼ M2

1. With effect from 1 January 2010, Member States shall take all necessary measures to ensure that the following vessels do not use marine fuels with a sulphur content exceeding 0,1 % by mass:

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(b) ships at berth in Community ports, 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.

Member States 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;

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(c) until 1 January 2012 for the vessels listed in the Annex and operating exclusively within the territory of the Hellenic Republic;

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

3. With effect from 1 January 2010, Member States 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 0,1 % by mass.

▼ M2*Article 4c***Trials and use of new emission abatement technologies**

1. Member States may, in cooperation with other Member States, as appropriate, approve trials of ship emission abatement technologies on vessels flying their flag, or in sea areas within their jurisdiction. During these trials the use of marine fuels meeting the requirements of Articles 4a and 4b shall not be mandatory, provided that:

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

2. Emission abatement technologies for ships flying the flag of a Member State shall be approved in accordance with the procedure referred to in Article 3(2) of Regulation (EC) No 2099/2002 of the European Parliament and of the Council of 5 November 2002 establishing a Committee on Safe Seas and the Prevention of Pollution from Ships (COSS) ⁽¹⁾, taking into account:

- guidelines to be developed by the IMO,
- results of any trials conducted under paragraph 1,
- effects on the environment, including achievable emission reductions, and impacts on ecosystems in enclosed ports, harbours and estuaries,
- feasibility of monitoring and verification.

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3. Criteria shall be established by the Commission for the use of emission abatement technologies by ships of all flags in enclosed ports, harbours and estuaries in the Community. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 9(2). The Commission shall communicate these criteria to the IMO.

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4. As an alternative to using low sulphur marine fuels meeting the requirements of Articles 4a and 4b, Member States may allow ships to use an approved emission abatement technology, provided that these ships:

- continuously achieve emission reductions which are at least equivalent to those which would be achieved through the limits on sulphur in fuel specified in this Directive,

⁽¹⁾ OJ L 324, 29.11.2002, p. 1. Regulation as amended by Commission Regulation (EC) No 415/2004 (OJ L 68, 6.3.2004, p. 10).

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- are fitted with continuous emission monitoring equipment, and
- document thoroughly that any waste streams discharged into enclosed ports, harbours and estuaries have no impact on ecosystems, based on criteria communicated by the authorities of port States to the IMO.

▼ B*Article 5***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 Member State to apply the limits on the maximum sulphur content referred to in Articles 3 and 4, that Member State shall inform the Commission thereof. The Commission may authorise a higher limit to be applicable within the territory of that Member State for a period not exceeding six months; it shall notify its decision to the Council and the Member States. Any Member State may refer that decision to the Council within one month. The Council, acting by a qualified majority, may adopt a different decision within two months.

*Article 6***Sampling and analysis**

1. Member States shall take all necessary measures to check by sampling that the sulphur content of fuels used complies with Articles 3 and 4. The sampling shall commence within six months of the date on which the relevant limit for maximum sulphur content in the fuel comes into force. It shall be carried out with sufficient frequency and in such a way that the samples are representative of the fuel examined.

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1a. Member States shall take the necessary measures to ensure that the sulphur content of marine fuels complies with the relevant provisions of Articles 4a and 4b.

Each of the following means of sampling, analysis and inspection shall be used as appropriate:

- sampling of the marine fuel for on-board combustion while being delivered to ships, following IMO guidelines, and analysis of its sulphur content;
- sampling and analysis of the sulphur content of marine fuel for on-board combustion contained in tanks, where feasible, and in sealed bunker samples on board ships;
- inspection of ships' log books and bunker delivery notes.

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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 with sufficient frequency, in sufficient quantities, and in such a way that the samples are representative of the fuel examined, and of the fuel being used by vessels while in relevant sea areas and ports.

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Member States shall also take reasonable measures, as appropriate, to monitor the sulphur content of marine fuels other than those to which Articles 4a and 4b apply.

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2. The reference method adopted for determining the sulphur content shall be that defined by:

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- (a) ISO method 8754 (1992) and PrEN ISO 14596 for heavy fuel oil and marine fuels;

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- (b) EN method 24260 (1987), ISO 8754 (1992) and PrEN ISO 14596 for gas oil.

The arbitration method will be PrEN ISO 14596. The statistical interpretation of the verification of the sulphur content of the gas oils used shall be carried out in accordance with ISO standard 4259 (1992).

▼M2*Article 7***Reporting and review**

1. On the basis of the results of the sampling, analysis and inspections carried out in accordance with Article 6, Member States shall by 30 June of each year provide the Commission with a short report on the sulphur content of the liquid fuels falling within the scope of this Directive and used within their territory during the preceding calendar year. That report shall include a record of the total number of samples tested by fuel type and shall indicate the corresponding quantity of fuel used, and the calculated average sulphur content. Member States shall also report the number of inspections made on board ships, and record the average sulphur content of marine fuels used in their territory which do not fall within the scope of this Directive on 11 August 2005.

2. On the basis, *inter alia*, of:

- (a) annual reports submitted in accordance with paragraph 1;
- (b) observed trends in air quality, acidification, fuel costs and modal shift;
- (c) progress in reducing emissions of sulphur oxides from ships through IMO mechanisms following Community initiatives in this regard;
- (d) a new cost-effectiveness analysis, including direct and indirect environmental benefits, of measures contained in Article 4a(4) and of possible further emission reduction measures; and
- (e) the implementation of Article 4c,

the Commission shall, by 2008, submit a report to the European Parliament and to the Council.

The Commission may submit with its report proposals for amending this Directive, in particular as regards:

- a second stage of sulphur limit values laid down for each fuel category, and
- taking account of work within the IMO, the sea areas where low sulphur marine fuels are to be used.

The Commission shall give particular consideration to proposals for:

- (a) the designation of additional SO_x Emission Control Areas;
- (b) the reduction of sulphur limits for marine fuel used in SO_x Emission Control Areas possibly down to 0,5 %;
- (c) alternative or complementary measures.

3. By 31 December 2005, the Commission shall report to the European Parliament and to the Council on the possible use of economic instruments, including mechanisms such as differentiated dues and kilometre charges, tradable emission permits and offsetting.

The Commission may consider submitting proposals on economic instruments as alternative or complementary measures in the context

▼M2

of the 2008 review, provided that environmental and health benefits can be clearly demonstrated.

▼M3

4. Any amendments necessary to make technical adaptations to Article 2, points 1, 2, 3, 3a, 3b and 4, or Article 6(2) in the light of scientific and technical progress shall be adopted by the Commission. Those measures, designed to amend non-essential elements of this Directive, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 9(2). Such adaptations shall not result in any direct changes to the scope of this Directive or to limits on sulphur in fuel specified in this Directive.

▼B*Article 8***Amendments to Directive 93/12/EEC**

1. Directive 93/12/EEC is amended as follows:
 - (a) in Article 1, paragraph 1(a) and paragraph 2 are deleted;
 - (b) in Article 2, the first subparagraph of paragraph 2 and paragraph 3 are deleted;
 - (c) Articles 3 and 4 are deleted.
2. Paragraph 1 shall apply as from 1 July 2000.

▼M3*Article 9***Committee procedure**

1. The Commission shall be assisted by a committee.
2. Where reference is made to this paragraph, Article 5a(1) to (4) and Article 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

▼B*Article 10***Transposition**

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 1 July 2000. They shall immediately inform the Commission thereof.

When Member States adopt these provisions, these shall contain a reference to this Directive or shall be accompanied by such reference at the time of their official publication. The procedure for such reference shall be adopted by Member States.

Member States shall communicate to the Commission the text of the provisions of national law which they adopt in the field covered by this Directive.

*Article 11***Penalties**

Member States shall determine the penalties applicable to breaches of the national provisions adopted pursuant to this Directive. The penalties determined must be effective, proportionate and dissuasive.

▼B

Article 12

Entry into force

This Directive shall enter into force on the day of its publication in the *Official Journal of the European Communities*.

Article 13

Addressees

This Directive is addressed to the Member States.

▼ **M2***ANNEX***GREEK VESSELS**

VESSEL'S NAME	DELIVERY YEAR	IMO No
ARIADNEPALACE	2002	9221310
IKARUSPALACE	1997	9144811
KNOSSOPALACE	2001	9204063
OLYMPIAPALACE	2001	9220330
PASIPHAEPALACE	1997	9161948
FESTOSPALACE	2001	9204568
EUROPAPALACE	2002	9220342
BLUESTAR I	2000	9197105
BLUESTAR II	2000	9207584
BLUE STAR ITHAKI	1999	9203916
BLUE STAR NAXOS	2002	9241786
BLUE STAR PAROS	2002	9241774
HELLENIC SPIRIT	2001	9216030
OLYMPIC CHAMPION	2000	9216028
LEFKAORI	1991	9035876
SOPHOKLISVE- NIZELOS	1990	8916607