COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 25.11.1999
COM(1999) 611 final

1998/0225 (COD)

Amended proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUI

amending Directive 88/609/EEC on the limitation of emissions of certai pollutants into the air from large combustion plants

(presented by the Commission pursuant to Article 250 (2) of the EC Treaty

EXPLANATORY MEMORANDUM

In July 1998, the Commission submitted a proposal for a Council Directive amending Directive 88/609 on the limitation of emissions of certain pollutants into the air from large combustion plants COM(1998)415 final. At its Plenary Session in April 1999, the European Parliament adopted a series of amendments at its first reading.

Pursuant to Article 250 paragraph 2 of the EC Treaty, the Commission herewith submits an amended proposal for a European Parliament and Council Directive amending Directive 88/609 on the limitation of emissions of certain pollutants into the air from large combustion plants. The amended proposal takes into account of a number of some of the amendments adopted by the European Parliament.

A number of amendments are acceptable, either in full, partially or in principle. However, in general, the Commission cannot accept those amendments which propose more stringent emission limit values and which seek to extend the scope of the proposal to cover large combustion plants for which a license was issued before 1 January 2000.

The Commission can accept Amendment 1, which amends a recital to clearly state the aim of the Community Strategy on Acidification. The Commission can also agree in part with the Amendment 3, which requests the Commission to bring forward proposals for EU-wide economic instruments aimed at reducing SO2 and NOx emissions. The Commission will consider the possible role for such instruments in the light of further progress on the Commission's Proposal[1] relating to the taxation of energy products.

Amendment 5 which requires the Commission to submit proposals before 1 July 2007 to update the emission limit values applicable, is also acceptable in principle. However, the Commission believes that the most appropriate way to proceed in this regard is through the implementation of the Directive on Integrated Pollution Prevention and Control (IPPC)[2] in the large combustion plant sector through which assessment of technological progress is also envisaged. Pursuant to Article 18 of that Directive, the Council, acting on a proposal from the Commission, will set emission limit values in accordance with the procedures laid down in the Treaty for which the need for Community action has been identified, on the basis, in particular, of the exchange of information provided for in Article 16 of that Directive.

The Commission can also accept in principle Amendment 15 regarding the dissemination of information on emissions to the public and appropriate organisations, to the extent that it can be accommodated through the development of a Pollutant Emission Register under the IPPC Directive. Pursuant to Article 15 paragraph 3 of that Directive, the Commission shall publish an inventory of emissions and sources responsible every three years on the basis of the data supplied by the Member States.

Amendment 2 is not acceptable as it relates to part of the 1994 Oslo Protocol to the 1979 Geneva Convention on Long Range Transboundary Air Pollution which refers

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1 COM(97)30 final.

2 OJ L 257, 10.10.1996, p. 26.

to the emission limit values in Directive 88/609. These are subject to revision under the Commission's Proposal.

The Commission cannot accept Amendment 4 which seeks to extend the scope of the Proposal to include gas turbines on offshore platforms and any technical apparatus used in the propulsion of vehicles, ships and aircraft. Gas turbines on offshore platforms are excluded from the scope due to the operational characteristics of these installations. As this Proposal addresses emissions from stationary sources, it is not appropriate to extend the scope to cover propulsion applications.

The Commission also cannot accept Amendment 6 which proposes to delete the derogation for the Kingdom of Spain in Directive 88/609, as the plants in question must be commissioned before the end of 2005 in order to remain eligible for the derogation.

Amendments 8, 10, 12, 14 and 20 propose to revise the emission limit values applicable to large combustion plants for which a license was issued between 1 July 1987 and 1 January 2000 and to also apply these emission limit values to plants for which a license was issued before 1 July 1987. Emission from this latter category of plants are controlled through national sectoral ceilings under Directive 88/609. These amendments are not acceptable to the Commission for the reasons set out below.

As part of a strategy to combat acidification and tropospheric ozone as well as to protect human health, a Proposal for a Directive on National Emission Ceilings has been developed and has been adopted by the Commission. This approach will propose a set of national emission reductions for a number of pollutants, including sulphur dioxide and nitrogen oxides, which will be cost effective at a Community scale and will take into account the relationship between emissions and their environmental impact. It will enable Member States to achieve the required emission reductions in the most cost-effective manner at national level, while ensuring that the Community's environmental objectives are respected. Consequently, the scope of the Proposal on Large Combustion Plants is restricted to new plants for which a license is issued after 1 January 2000.

Amendments 7, 11 and 13 propose more stringent emission limit values for solid and gaseous fuels for plants licensed after 1 January 2000 than those proposed by the Commission. The Commission's Proposal aims to set minimum standards, which can be applied, at Community level. This approach will give Member States the flexibility to apply more stringent emission limit values, if warranted by local circumstances or to meet emission targets for sulphur dioxide and nitrogen oxides resulting from the Commission's pending Proposal on national emission ceilings. Equally, it should not prejudice the environmental performance of large combustion plants when assessed on an integrated basis. In this context, the Commission does not consider more stringent emission limit values to be appropriate and cannot accept these amendments.

In addition, for reasons of internal consistency, the date by which Member States are requested to bring into force laws, regulations and administrative provisions necessary to comply with Directive, has been changed.

Amendments to the initial Commission proposal have been highlighted using *strikethrough* for deleted text and ***bold*** and ***underlined*** for new or amended text.

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Amended proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending Directive 88/609/EEC on the limitation of emissions of certain pollutants into the air from large combustion plants

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article ~~130(s)~~**175(1)** thereof,

Having regard to the proposal from the Commission[3],

Having regard to the Opinion of the Economic and Social Committee[4],

Having regard to the Opinion of the Committee of the Regions,

Acting in accordance with the procedure laid down in Article ~~189c~~ **251** of the Treaty,

(1) Whereas the fifth Environmental Action Programme[5] sets as an objective "no exceedance ever of critical loads and levels" of certain acidifying pollutants such as sulphur dioxide (SO_2) and nitrogen oxides (NO_x), and in terms of air quality the objective is that "all people should be effectively protected against recognised health risks from Air Pollution";

(2) Whereas Council Directive 88/609/EEC[6], as amended by Directive 94/66/EC[7] and last amended by the Act of Accession of Austria, Finland and Sweden, contributed to the reduction and control of atmospheric emissions from large combustion plants;

(3) Whereas the Commission has recently published a Communication on a Community strategy to combat acidification[8]; whereas the revision of Directive 88/609/EEC was identified as being an integral component of that strategy **with the long term aim of a reduction in emissions of sulphur dioxide and nitrogen oxides sufficient to bring residues and concentrations down to levels below the critical loads and levels**;

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3 COM(98)415 final.
4 OJ C 101, 12.4.1999, p. 55.
5 OJ C 138, 17.5.1993, p. 1.
6 OJ L 336, 7.12.1988, p. 1.
7 OJ L 337, 24.12.1994, p. 83.
8 COM(97)88 final.

(4) Whereas, in accordance with the principles of subsidiarity and proportionality as set out in Article 5 of the Treaty, the objective of reducing acidifying emissions from large combustion plants cannot be sufficiently achieved by the Member States acting individually and unconcerted action offers no guarantee of achieving the desired objective; whereas, in view of the need to reduce acidifying emissions across the Community, it is more effective to take action at the level of the Community; whereas this Directive confines itself to minimum requirements for new combustion plants;

(5) Whereas Council Directive 96/61/EC[9] sets out an integrated approach to pollution prevention and control in which all the aspects of an installation's environmental performance are considered in an integrated manner; whereas combustion installations with a rated thermal input exceeding 50 MW are included within the scope of that Directive; **whereas pursuant to Article 15 paragraph 3 of that Directive an inventory of the principal emissions and sources responsible shall be published every three years by the Commission on the basis of data supplied by the Member States; whereas pursuant to Article 18 of that Directive, acting on a proposal from the Commission , the Council will set emission limit values in accordance with the procedures laid down in the Treaty for which the need for Community action has been identified, on the basis, in particular, of the exchange of information provided for in Article 16 of that Directive**;

(6) Whereas compliance with the emission limit values laid down by Directive 88/609/EEC, as amended by this Directive, should be regarded as a necessary but not sufficient condition for compliance with the requirements of Directive 96/61/EC regarding the use of best available techniques; whereas such compliance may involve more stringent emissions limit values, emission limit values for other substances and other media, and other appropriate conditions;

(7) Whereas industrial experience in the implementation of techniques for the reduction of polluting emissions from large combustion plants has been acquired over a period of 15 years;

(8) Whereas installations for the production of electricity represent an important part of the large combustion plant sector;

(9) Whereas Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity[10] must be transposed by 19 February 1999; whereas this is likely to have the effect of distributing new production capacity among new arrivals in the sector;

(10) Whereas the Community is committed to a reduction of carbon dioxide emissions; whereas the combined production of heat and electricity represents a valuable opportunity for significantly improving overall efficiency in fuel use;

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9 OJ L 257, 10.10.1996, p. 26.
10 OJ L 27, 30.1.1997, p. 20.

(11) Whereas a significant increase in the use of natural gas for producing electricity is already underway and is likely to continue, in particular through the use of gas turbines;

(12) Whereas Council Resolution of 24 February 1997 on a Community strategy for waste management[11] emphasises on the need for promoting waste recovery and states that appropriate emission standards should apply to the operation of facilities in which waste is incinerated in order to ensure a high level of protection for the environment;

(13) Whereas industrial experience has been gained concerning techniques and equipment for the measurement of the principal pollutants emitted by large combustion plants; whereas the European Committee for Standardisation (CEN) has undertaken work with the aim of providing a framework securing comparable measurement results within the Community and guaranteeing a high level of quality of such measurements;

(14) Whereas there is a need to improve knowledge concerning the emission of the principal pollutants from large combustion plants; whereas, in order to be genuinely representative of the level of pollution of an installation, such information should also be associated with knowledge concerning its energy consumption;

(15) Whereas Directive 88/609/EEC should therefore be amended accordingly,

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Directive 88/609/EEC is hereby amended as follows:

1. Article 2 is amended as follows:

   (a) In point 4, the words *"by processes especially designed for this purpose"* are deleted

   (b) In point 6, the words *"with the exception of domestic refuse and toxic or dangerous waste"* are replaced by the words *"with the exception of waste covered by Council Directives 89/369/EEC*, 89/429/EEC** and 94/67/EC***.*

* OJ L 163, 14.6.1989, p. 32.

** OJ L 203, 15.7.1989, p. 50.

*** OJ L 365, 31.12.1994, p. 34."

[11] OJ C 76, 11.3.1997, p. 1.

(c) Point 7 is amended as follows:

(i) The following indents are added to the third paragraph:

"- any technical apparatus used in the propulsion of a vehicle, ship or aircraft,

- gas turbines used on offshore platform."

(ii) In the fourth paragraph, the words *"or by gas turbines, irrespective of the fuel used"* are deleted.

(d) The following points are added:

"11. "biomass" means: any whole or part of a vegetable matter which can be used for the purpose of recovering its energy content. Wood wastes and vegetable matter wastes are also considered as biomass provided that they do not fall into the scope of Council Directives 89/369/EEC, 89/429/EEC and 94/67/EC;

12. "gas turbine" means: any rotating machine which converts thermal energy into mechanical work, consisting mainly of a compressor, a thermal device in which fuel is oxidised in order to heat the working fluid, and a turbine."

2. In Article 3, paragraph 4 is deleted.

3. In Article 4, paragraph 2 is deleted.

4. In Article 5, the following sentence is added to point 1:

"This provision does not apply to new plants for which the licence is granted on or after 1 January 2000."

5. Article 7 is replaced by the following:

"Article 7

In new plants for which the licence is granted on or after 1 January 2000 the competent authorities shall ensure that there is provision for the combined generation of heat and electricity where this is technically and economically feasible. To this end, the Member States shall ensure that operators examine the possibilities of locating the installations on sites with a heat requirement."

6. Article 8 is amended as follows:

(a) Paragraph 1 is replaced by the following:

"1. Member States shall ensure that provision is made in the licences referred to in Article 4(1) for procedures relating to malfunction or breakdown of the abatement equipment. In case of a breakdown the competent authority shall in particular require the operator to reduce or close down operations if a

return to normal operation is not achieved within 24 hours, or to operate the plant using low polluting fuels. In any case the competent authority shall be notified within 48 hours. In no circumstances shall the cumulative duration of unabated operation in any one year period exceed 120 hours except in cases where, in the judgement of the competent authority, there is an overriding need to maintain energy supplies."

(b) Paragraph 2 is deleted.

(c) In paragraph 3, the words "*a short period*" are replaced by the words "*a period not exceeding ten days*".

(d) In paragraph 4, the words "*this Article*" are replaced by the words "*paragraph 3*".

7. In Article 9(3), the first subparagraph is replaced by the following:

"As an alternative to paragraph 2, the following emission limit values for sulphur dioxide averaged over all new plants within the refinery and irrespective of the fuel combination used by be applied:

(a) for plants for which a licence is granted before 1 January 2000: 1 000 mg/Nm^3,

(b) for plants for which a licence is granted on or after 1 January 2000: 450 mg/Nm^3.

8. In Article 13, paragraphs 2 and 3 are deleted.

9. In Article 15, the following paragraph 4 shall be added:

"4. For new plants for which the licence is granted on or after 1 January 2000, the emission limit values shall be regarded as complied with if:

- no validated daily average value exceeds the relevant figures set out in Annexes III to VII;

- no validated hourly average value exceeds 200% of the relevant figures set out in Annexes III to VII.

The "validated average values" are determined as set out in Annex IX, Part A, paragraph 6."

10. In Article 16, paragraph 3 is deleted.

11. Annexes III to IX are amended as set out in the Annex to this Directive.

Article 2

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 31 December ~~2000~~**1999** at the latest. They shall forthwith inform the Commission thereof.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

Article 3

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

Article 4

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament *For the Council*

The President *The President*

ANNEX

(1) The following Annex shall be added to Annex III:

"SO_2 emission limit values expressed in mg/Nm^3 (O_2 content 6%) to be applied by new plants for which the licence is granted on or after 1 January 2000

Type of fuel	50 to 100 MWth	100 to 300 MWth	> 300 MWth
Biomass	200	200	200
General case	850	850 to 200 (linear decrease)	200"

(2) The following shall be added to Annex IV:

"SO_2 emission limit values expressed in mg/Nm^3 (O_2 content 3%) to be applied by new plants for which the licence is granted on or after 1 January 2000

50 to 100 MWth	100 to 300 MWth	> 300 MWth
850	850 to 200 (linear decrease)	200"

(3) The following shall be added to Annex V:

"SO_2 emission limit values expressed in mg/Nm^3 (O_2 content 3%) to be applied by new plants for which the licence is granted on or after 1 January 2000

Gaseous fuels in general	35
Liquefied gas	5
Low calorific gases from coke oven	400
Low caloric gases from blast furnace	200"

(4) The following is added to Annex VI:

"Solid fuels

NO_x emission limit values expressed in mg/Nm^3 (O_2 content 6%) to be applied by new plants for which the licence is granted on or after 1 January 2000

Type of fuel	50 to 100 MWth	100 to 300 MWth	> 300 MWth
Biomass	350	300	300
General case	400	300	200"

Liquid fuels

NO_x emission limit values expressed in mg/Nm^3 (O_2 content 3%) to be applied by new plants (with the exception of gas turbines) for which the licence is granted on or after 1 January 2000

50 to 100 MWth	100 to 300 MWth	> 300 MWth
400	300	200

Gaseous fuels

NO_x emission limit values expressed in mg/Nm^3 (O_2 content 3%) to be applied by new plants (with the exception of gas turbines) for which the licence is granted on or after 1 January 2000

	50 to 300 MWth	> 300 MWth
Natural gas (note 1)	150	100
Other gases	200	200

Gas Turbines

NO_x emission limit values expressed in mg/Nm^3 (O_2 content 15%) to be applied by a single gas turbine unit for which the licence is granted on or after 1 January 2000

following limit values apply only above 70% load

	> 50 MWth (thermal input at ISO conditions)
Natural gas(Note 1)	50(Note 2)
Liquid fuels(Note 3)	120

Note 1: Natural gas is naturally occurring methane with not more than 20% (by volume) of inerts and other constituents.

Note 2: 75 mg/Nm^3 in following cases:

- gas turbine used in a combined heat and power system;
- gas turbine driving compressor for public gas grid supply.

For gas turbines not falling into either of the above categories, but having an efficiency greater than 35% – determined at ISO base load conditions – the ELV shall be $50*\eta/35$ where η is the gas turbine efficiency expressed as a percentage (and determined at ISO base load conditions).

Note 3: This emission limit value only applies to gas turbine firing light and middle distillates."

(5) The following is added to Annex VII:

"Solid fuels

Dust emission limit values expressed in mg/Nm^3 (O_2 content 6%) to be applied by new plants for which the licence is granted on or after 1 January 2000

50 to 100 MWth	> 100 MWth
50	30

Liquid fuels

Dust emission limit values expressed in mg/Nm^3 (O_2 content 3%) to be applied by new plants for which the licence is granted on or after 1 January 2000

50 to 100 MWth	> 100 MWth
50	30

Gaseous fuels

Dust emission limit values expressed in mg/Nm^3 (O_2 content 3%) to be applied by new plants for which the licence is granted on or after 1 January 2000

As a rule	5
For blast furnace gas	10
For gases produced by the steel industry which can be used elsewhere	30"

(6) The following is added to Annex VIII:

"For new plants for which the licence is granted on or after 1 January 2000

50 to 100 MWth	100 to 300 MWth	> 300 MWth
90%	92%	95%
NB: Installations which achieve 300 mg/Nm^3 SO_2 are exempt from application of the relevant rate of desulphurisation."		

(7) Annex IX is amended as follows:

(a) Part A is amended as follows:

(i) In the title, the words *'from new plants"* are replaced by the words *"from combustion plants"*.

(ii) Paragraph 1 is replaced by the following:

"1. Until 1 January 2000 concentrations of SO_2, dust, NO_x shall be measured continuously in the case of new plants with a rated thermal input of more than 300 MW. However, monitoring of SO_2 and dust may be confined to discontinuous measurements or other appropriate determination procedures in

cases where such measurements or procedures, which must be verified and approved by the competent authorities, may be used to obtain concentration.

In the case of plants not covered by the first subparagraph, the competent authorities may require continuous measurements of those three pollutants to be carried out where considered necessary. Where continuous measurements are not required, discontinuous measurements or appropriate determination procedures as approved by the competent authorities shall be used regularly to evaluate the quantity of the above-mentioned substances present in the emissions.

From 1 January 2000 competent authorities shall require continuous measurements of concentrations of SO_2, NO_x, and dust from each combustion plant which falls into one of the following categories:

- new combustion plant with a rated thermal input of 100 MW or more.
- other combustion plant with a rated thermal input of 300 MW or more.

By way of derogation from the third subparagraph, continuous measurements shall not be required in the following cases:

- for combustion plants with a life span less than 10 000 operational hours;
- for SO2 and dust from gas turbines firing natural gas or light and middle distillates.

Where continuous measurements are not required, discontinuous measurements shall be required at least each six months. As an alternative, appropriate determination procedures, which must be verified and approved by the competent authorities, may be used to evaluate the quantity of the above-mentioned pollutants present in the emissions. Such procedures shall use relevant CEN standards as soon as they are available."

(iii) Paragraph 4 is replaced by the following:

"4. The continuous measurements carried out in compliance with paragraph 1 shall include the relevant process operation parameters such as oxygen content, temperature, pressure. The continuous measurement of the water vapour content of the exhaust gases shall not be necessary, provided that the sampled exhaust gas is dried before the emissions are analysed.

Representative measurements, i.e. sampling and analysis, of relevant pollutants and process parameters as well as reference measurement methods to calibrate automated measurement systems shall be carried out in accordance with CEN standards. Until the CEN standards are drawn up, national standards shall apply.

Continuous measuring systems shall be subject to control by means of parallel measurements with the reference methods at least every one year."

(iv) The following paragraphs 5 and 6 are added:

"5. The value of the 95% confidence intervals determined at the emission limit values shall not exceed the following percentages of the emission limit value:

Sulphur dioxide	20%
Nitrogen oxides	20%
Dust	30%

6. The validated hourly and daily average values shall be determined within the effective operating time (excluding start-up and shut-off periods), from the measured valid hourly average values after having subtracted the value of the confidence interval specified above.

Any day in which more than three-hourly average values are invalid due to malfunction or maintenance of the continuous measurement system shall be invalidated. If more than ten days over a year are invalidated for such situations the competent authority shall require the operator to take adequate measures to improve the reliability of the continuous monitoring system."

(b) Part B is amended as follows:

(i) In the title, the words *"new plants"* are be replaced by the words *"combustion plants"*.

(ii) The words "*Until 2003*" are added at the beginning of the first paragraph.

(iii) The following paragraphs are added:

"Member States shall establish, starting in 2003 and for each subsequent year, an inventory of SO_2 and NO_x emissions from all combustion plants with a rated thermal input of 50 MW or

more. The competent authority shall obtain for each plant operated under the control of one operator at a given location the following data:

- the total annual emissions of SO_2, NO_x and dust (as total suspended particles),

- the total annual amount of energy input, related to the net calorific value, broken down in terms of the five categories of fuel: biomass, other solid fuels, liquid fuels, natural gas, other gases.

A summary of the results of this inventory shall be communicated to the Commission every three years within twelve months from the end of the three-year period considered. The yearly plant-by-plant data shall be made available to the Commission upon request."

(c) Part C is amended as follows:

(i) In paragraph 1, the words "*until and including 2003*" are inserted after "*and for each subsequent year*".

(ii) In paragraph 2, the second subparagraph is deleted.

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