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Report

drawn up on behalf of the Committee on the Environment, Public Health and Consumer Protection

on the proposal from the Commission of the European Communities to the Council (Doc. 501/75) for a directive relating to the use of fuel oils with the aim of decreasing sulphurous emissions

Rapporteur: Mr W. MULLER

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English Edition

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By letter of 23 January 1976 the President of the Council of the European Communities requested the European Parliament, pursuant to Article 100 of the EEC Treaty, to deliver an opinion on the proposal from the Commission of the European Communities to the Council for a directive relating to the use of fuel-oils with the aim of decreasing sulphurous emissions.

The President of the European Parliament referred this proposal to the Committee on the Environment, Public Health and Consumer Protection as the committee responsible and to the Committee on Energy and Research for its opinion.

On 16 February 1976 the Committee on the Environment, Public Health and Consumer Protection appointed Mr W. Müller rapporteur.

It considered the proposal at its meetings of 16 February and 26 April 1976.

At the meeting of 26 April 1976 the committee unanimously adopted the motion for a resolution and the explanatory statement.

Present: Mr Della Briotta, chairman; Lord Bethell, vice-chairman; Mr W. Müller, rapporteur; Miss Boothroyd, Mr Delmotte (deputizing for Mr Adams), Mr Evans, Mr Gibbons, Mrs Iotti, Mrs Kruchow, Mr Martens, Mr Ney, Mr Noè, Mr Radoux (deputizing for Mr Walkhoff), Mr Rivierex, Mr Schwabe and Mr Springorum.

The opinion of the Committee on Energy and Research is attached.

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The Committee on the Environment, Public Health and Consumer Protection hereby submits to the European Parliament the following motion for a resolution together with explanatory statement:

MOTION FOR A RESOLUTION

embodying the opinion of the European Parliament on the proposal from the Commission of the European Communities to the Council for a directive relating to the use of fuel-oils with the aim of decreasing sulphurous emissions

The European Parliament,

- having regard to the proposal from the Commission of the European Communities to the Council¹,
 - having been consulted by the Council pursuant to Article 100 of the EEC Treaty (Doc. 501/75),
 - having regard to the report of the Committee on the Environment, Public Health and Consumer Protection and the opinion of the Committee on Energy and Research (Doc. 92/76),
1. Welcomes the proposal for a directive as a further measure for reducing atmospheric pollution by sulphur dioxide and suspended particulates;
 2. Reiterates its belief in the 'polluter pays' principle, as endorsed by the Commission and the Council, but nevertheless feels that the Commission must provide more information about the costs involved for energy producers and consumers so that the effects on energy policy of the present proposal, including the possible costs, can be examined in the framework of an overall strategy on emissions of sulphur dioxide and suspended particulate matter;
 3. Notes that the Commission has rightly taken Article 100 of the EEC Treaty as the legal basis for its proposal;
 4. Regrets that, owing to the large number of exemptions for which it provides, the directive will not ensure adequate protection of the environment and public health;
 5. Notes that implementation of the directive will be possible only if at the same time an extensive monitoring network suitable for the purpose is in existence;

¹ OJ No. C 54, 8.3.1976, p.79

6. Therefore urges the Commission to submit proposals for introducing common methods of permanent measurement and the standardization of measuring methods;
7. Urges the Commission to conduct continuous assessments of the monitoring of atmospheric pollution and to submit new practical proposals on the basis of its findings ;
8. Requests the Commission to incorporate the following amendments in its proposal, pursuant to Article 149, second paragraph of the EEC Treaty.

PROPOSAL FOR A COUNCIL DIRECTIVE
relating to the use of fuel-oils with the
aim of decreasing sulphurous emissions

Preamble and recitals unchanged

Articles 1 and 2 unchanged

Article 3

Article 3

Paragraph 1 unchanged

- | | |
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| <p>2. Regions in which a level of air pollution represented by any one of pairs of value ranges for the concentration of sulphur dioxide and the associated concentration of suspended particulate matter laid down in table 1 of Annex 1 to this Directive has been exceeded in each of the three preceding years shall be specified as zones of special protection.</p> | <p>2. Regions in which a level of air pollution represented by any one of pairs of value ranges for the concentration of sulphur dioxide and the associated concentration of suspended particulate matter laid down in table 1 of Annex 1 to this Directive has been exceeded <u>in the preceding year</u> shall be specified as zones of special protection.</p> |
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Articles 4 and 5 unchanged

Article 6

Article 6

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| <p>1. From October 1, 1978 combustion installations situated outside of the zones of special protection, having a thermal power rating of 100 MW or more and burning fuel-oils must use low sulphur fuel-oil, or an equivalent fuel, as soon as for a 24 hour period the average concentration of sulphur dioxide and of suspended particulate matter at ground level within the area of influence of these installations has exceeded</p> | <p>1. From October 1, 1978 combustion installations situated outside of the zones of special protection, having a thermal power rating of 100 MW or more and burning fuel-oils must use low sulphur fuel-oil, or an equivalent fuel, as soon as for a 24 hour period the average concentration of sulphur dioxide and of suspended particulate matter at ground level within the area of influence of these installations has exceeded</p> |
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¹ For the complete text, see OJ No. C 54, 8.3.1976, p.79

any of the pairs of the value ranges laid down in table 2 of Annex I to this Directive, and continue that use until these concentrations for a 24-hour period have fallen back below the value ranges in table 2 of Annex I.

any of the pairs of the value ranges laid down in table 2 of Annex I to this Directive, and continue that use until these concentrations for a 6-hour period have fallen back below the value ranges given for a 24-hour period in table 2 of Annex I.

Paragraph 2 unchanged

Article 7 unchanged

Article 8

1. Paragraph 1 of Article 4 shall not apply to :

- (a) combustion installations and plants employing processes where the level of sulphur dioxide does not exceed that which is reached when the installation is burning low sulphur fuel-oil under such conditions that all sulphur is emitted;
- (b) combustion installations controlled by a monitoring network and equipped with an adequate reserve of low sulphur fuel-oil or an equivalent fuel, provided that the emissions from these installations, during normal meteorological conditions, do not contribute significantly to the concentration of sulphur dioxide measured at ground level within the zones of special protection;
- (c) sea-going ships calling at a port located within a zone of special protection.

Article 8

1. Paragraph 1 of Article 4 shall not apply to :

(a) unchanged

(b) unchanged

(c) unchanged

- (d) combustion installations burning a combination of fuels, e.g. oil refineries burning gas and fuel-oil, provided that the combined emissions of sulphur dioxide do not exceed those that would occur from burning only low sulphur residual fuel.

Paragraphs 2, 3 and 4 unchanged

Article 9

Member States shall notify the Commission of the zones of special protection specified pursuant to article 3, not later than six months after the decision in question. They shall also notify any other criteria taken into consideration in their decision (for example population density, industrial activities giving rise to pollution and special topographical and meteorological conditions).

Article 9

Member States shall notify the Commission of the zones of special protection specified pursuant to Article 3, not later than six months after the decision in question. They shall also notify any other criteria taken into consideration in their decision (for example population density, industrial activities giving rise to pollution and special topographical and meteorological conditions in the areas concerned).

Articles 10 to 14 unchanged

EXPLANATORY STATEMENTI. INTRODUCTION

1. The objective of this proposal for a directive is to decrease sulphurous emissions, particularly in regions where air pollution caused by such compounds is considerable and therefore constitutes a danger to public health.

Such a decrease in sulphurous emissions is sought to be achieved by regulations stipulating that the fuel-oils used in such regions must be of low sulphur content.

2. Sulphur dioxide is a product of the combustion of fossil fuels such as petroleum, various petroleum derivatives and coal. In combustion most of the sulphurous components of these fuels are converted into sulphur dioxide and sometimes sulphur trioxide.

Sulphur dioxide has damaging effects not only on the health of human beings but also on plant and animal life and the physical environment¹.

Research conducted by the Commission in cooperation with a group of national experts into SO₂-concentrations at ground level in Member States in 1971 and 1972 has shown that the average annual level observed in a number of urban regions of the European Community is considerably higher than the reference level employed in various countries².

3. In the Community's action programme on the environment, adopted by the Council on 22 November 1973, priority was given to reduction of atmospheric pollution by sulphurous compounds and suspended particulates³ and in its resolution of 3 March 1975 on energy and the environment, the Council requested the Commission to submit proposals on the regulation of sulphur content and the use of heavy fuel-oils⁴.

4. A first step towards reducing the sulphur dioxide content of the atmosphere was taken with the directive on the approximation of the laws of the Member States on the sulphur content of gas oils approved by the Council on 16 October 1975, on which the European Parliament had already delivered an opinion in the report drawn up by Mr ROSATI on behalf of our committee (Doc. 103/74).

¹ Doc. 22/74, p.7

² SEC (74) 1150 final, p. 22

³ OJ No. C 112, 20 December 1973, p. 13

⁴ OJ No. C 168, 25 July 1975, p. 3

This proposal for a directive relates to heavy fuel-oils and therefore constitutes a further step towards reducing sulphurous emissions from liquid fuels.

Apart from its concern with the protection of the environment, the Commission has been further prompted to propose this directive by the discrepancies between a number of laws and administrative provisions already in force or in preparation in several Member States governing the maximum sulphur content of heavy fuel-oils and criteria for determining protected regions.

In accordance with Article 100 of the EEC Treaty, these discrepancies should be abolished, because they are liable to cause distortions in competition and thus directly influence the operation of the common market.

II. DISCUSSION OF THE PROPOSAL FOR A DIRECTIVE

5. The proposal for a directive gives the impression that the Commission wishes to reduce the level of sulphur dioxide in the atmosphere by allowing only heavy fuel-oils that have a low sulphur content, but the number of exemptions provided for indicates that implementation of this directive will give rise to difficulties.

Your committee can appreciate the difficulties that will arise in putting the directive into effect and also realizes that, as the Commission explicitly states in its explanatory memorandum, supply difficulties and the subsequent extra cost of low sulphur fuel-oil will make it difficult to introduce a general obligation to use these fuels.

6. The Commission states that certain Member States would not accept a directive that laid down stricter provisions on the use of low sulphur fuel-oils. Your committee regrets this but, having due regard thereto, does not intend to call in question the basic provisions of the proposal for a directive.

In view of its particular responsibility it does, however, wish to go into certain aspects that are definitely of importance at least for the protection of health and the environment.

7. Article 3 stipulates that regions in which a level of air pollution in each of the three preceeding years has been higher than the levels laid down in table 1 of Annex 1, shall be specified as zones of special protection.

Your committee notes that if the level were to be lower than the one laid down in a particular year because, for example, of unusual meteorological conditions, this would mean that for the three succeeding years the region would no longer be considered a zone of special protection, although pollution by sulphur dioxide and suspended particulates could be above the critical level.

It therefore proposes that this obligation should be introduced in respect of all regions where the levels are higher than those laid down in table 1 of Annex 1 for a period of 1 year.

8. The Committee on the Environment, Public Health and Consumer Protection also feels that the determination of zones of special protection should not be left to the Member States but should be the responsibility of the Commission, since the application of common criteria is here involved.

Moreover, the Commission should be kept informed of the most important data relating to pollution of the atmosphere by sulphur dioxide, in view of the Council decision of 24 June 1975 establishing a common procedure for the exchange of information between the surveillance and monitoring networks based on data relating to atmospheric pollution caused by certain compounds and suspended particulates¹, which requires the Member States to provide the Commission with certain data relating to this kind of pollution.

9. Your committee feels that measurement alone is not enough, but that the important thing is to introduce uniform systems of measurement so as to produce data that can be compared.

To achieve this the Commission should at an early date submit the proposals on the harmonization of methods of measurement referred to in Article 5 of the abovementioned Council decision.

Your committee is also convinced that harmonized methods of measurement in combination with an extensive monitoring network are necessary to make the proposal for a directive at all efficient.

10. Article 6 stipulates that combustion installations situated outside of the zones of special protection that have a thermal power rating of 100 MW or more and cause a level of pollution exceeding the levels laid down in table 2 of Annex 1 shall be required to use low sulphur fuel-oil or an equivalent fuel until the concentrations for a 24-hour period have dropped to below these levels.

¹ OJ No. L 194, 25 July 1975, p. 32

Atmospheric or unusual topographic circumstances can cause these temporary abnormal levels. Your committee agrees with the principle whereby temporary measures are taken where there is a danger to public health and the environment but urges the Commission to examine whether this 100 MW level could not be lowered.

11. Article 8 specifies a number of installations that do not have to use low sulphur fuel-oil.

Your committee agrees with this but on condition that a properly equipped and permanent control system is maintained in respect of these installations and that the Commission decides to which installations the exemptions shall apply and in what circumstances.

III. CONCLUSIONS

12. Clearly, the directive will be pointless unless recourse can be had to a network of monitoring stations encompassing all the regions subject to pollution by sulphur dioxide.

The Committee on the Environment, Public Health and Consumer Protection therefore insists, as it has done before in the reports by Mr NOE' (Doc. 320/74) and Mrs ORTH (Doc. 515/74), that the Commission submit proposals on the introduction of Community methods for permanent measurement and standardization of measuring methods.

13. Your committee also strongly feels that the Commission should be made responsible for determining the zones of special protection and carrying out the checks necessary to ensure that the directive is implemented strictly and uniformly throughout the Community.

14. Finally, your committee hopes that the protection of the environment and public health will not be completely overshadowed by economic necessity and again stresses the equal importance of both interests.

It urges the Commission to draw up at regular intervals, after the introduction of this directive, surveys of developments in atmospheric pollution by sulphur dioxide and suspended particulates with a view to ascertaining whether the measures taken are adequate or should be supplemented by new provisions.

IV. DISCUSSION OF THE OPINION OF THE COMMITTEE ON ENERGY AND RESEARCH

15. The Committee on Energy and Research, asked for its opinion, requested the committee responsible to take the following three points into account in discussing the present proposal:

- (a) it requests the Committee on the Environment, Public Health and Consumer Protection to add a further point to the motion for a resolution asking the Commission to provide more information on the increased costs involved for energy producers and consumers in the application of this directive.

The committee responsible accepts this request on condition that the 'polluter pays' principle is taken into account.

- (b) with a view to energy saving, the committee asked for its opinion proposes an amendment to the text of Article 6 paragraph 1 of the proposal for a directive, to the effect that all combustion installations situated outside of the zones of special protection 'must continue that use (of low sulphur fuel-oil) until these concentrations for a one-hour period have fallen back below the value ranges given for a 24-hour period in table 2 of Annex I'.

The Committee on the Environment, Public Health and Consumer Protection considers that a period of one hour is too short for the adequate protection of public health and therefore proposes a period of six hours;

- (c) the committee asked for its opinion considers that one addition should be made to the exceptive conditions in Article 8, paragraph 1, referring to installations burning a combination of fuels provided that the combined emissions of sulphur dioxide do not exceed those that would occur from burning only low sulphur residual fuel.

The committee responsible saw no objection to this amendment and accepted it unchanged.

OPINION

of the Committee on Energy and Research

Draftsman: Mr Osborn

On 19 February, 1976 the Committee on Energy and Research appointed Mr Osborn draftsman.

It considered the draft opinion at its meetings of 25 March and 22 April, 1976 and adopted it unanimously.

Present: Mr Springorum, Chairman; Mr Flämig, Vice-Chairman; Mr Leonardi, Vice-Chairman; Mr Osborn, draftsman; Mr Ariosto (deputising for Mr Rizzi), Lord Bessborough, Mr de Broglie, Mr Dalyell, Mr De Clercq (deputising for Mr Pintat), Mr Delmotte (deputising for Mr van der Hek), Mr Ellis, Mr Frehsee, Mr Giraud, Mr Herbert, Mrs Kellett-Bowman (deputising for Mr Normanton), Mr Krieg, Mrs Kruchow, Mr Liogier, Mr van der Mei, Mr Meintz (deputising for Mr Hougardy), Mr Memmel, Mr K. Nielsen, Mr Noè, Mr Schwabe, Mr Vandewiele.

A Scope of the Commission Proposal

1. This proposal for a Council Directive aims at decreasing sulphurous emissions into the atmosphere by providing for the use of low sulphur content fuel oils in regions where air pollution by sulphur dioxide and suspended particulate matter is high. Such regions would be designated "Zones of Special Protection".
2. Zones would be defined according to the concentration of SO₂ at ground level. This is also linked to particulate concentration levels, so that at low particulate levels, higher levels of SO₂ would be tolerated.
3. The sulphur content of low sulphur fuel oil is to be reduced to not more than 2 per cent by weight from 1.6.1978, and 1 per cent by weight from 1.6.1983. There is a possibility for review, taking into consideration both the environmental and economic situations in the Community, before the introduction of the second stage in 1983.
4. Flue gas desulphurisation and other technology which removes SO₂ from the combustion gases would be acceptable alternatives to low sulphur fuel oils.
5. Tall stacks would be an accepted strategy to reduce ground level concentrations, provided installations using such stacks were controlled by a monitoring network and equipped with an adequate reserve of low sulphur fuel oil or an equivalent fuel, and provided that the emissions from these installations during normal meteorological conditions would not contribute significantly to the concentration of SO₂ measured at ground level within the Zones of Special Protection.
6. Waivers could be given on the sulphur limit of low sulphur fuel oil if there should be a sudden change in the supply situation for crude oil.

B The Present Proposed Directive Viewed in the Light of the Committee's
Previous Work on the Reduction of Sulphurous Emissions

7. In view of all the recommendations contained in the motion for a resolution ⁽¹⁾ of the Kater report drawn up on behalf of the Committee on Energy, Research and Technology on the need for Community measures for the desulphurisation of fuels (Doc.22/74), careful consideration must be given to the increased costs which might arise from large-scale desulphurisation, particularly after the introduction of an upper sulphur limit of 1% for low sulphur fuels. Studies are at present under way to estimate the costs to industry and to the producers of energy, especially electricity, which would result from the introduction of the measures proposed by the Commission.

8. The cost of desulphurisation of oil depends on the sulphur content of the crude, on the level to which sulphur content is to be reduced, and on the utilisation of the desulphurisation plant. It is thus difficult to give simple costs for desulphurisation. Stichting CONCAWE, in its report no.13/72 of December 1972, estimated the capital investment per dollar /annual ton capacity for a desulphurisation installation reducing Kuwait crude yielding atmospheric residues with a sulphur content of 4 per cent, to 1 per cent sulphur in desulphurised residue, to be \$15 to 27. These figures, dating from 1972, will presumably be no longer valid and the results of studies estimating the cost to Community industry of desulphurisation is being awaited.

9. The United Nations Economic Commission for Europe, in its report ⁽²⁾ on the second seminar on desulphurisation of fuels and combustion gases held in Washington DC in November 1975, states that the energy consumption of oil desulphurisation ranges from 3.5 per cent on intake for middle distillation to 6-8 per cent on intake for residual oils, with which the present proposal is concerned. Such proportions are not negligible, though a study of the sulphur content of petroleum products used by European industry would have to be made before the additional energy consumption required by this proposal could be estimated.

(1) OJ No.C 76 of 3.7.1974, p.44

(2) ENV./SEM.4/2

10 . The costs of desulphurization could be important for electricity producers, being major consumers of heavy fuel oil. The following table shows the variety of dependence on oil for electricity generation in different Member States:

<u>ELECTRICAL ENERGY PRODUCTION 1973¹</u>		
<u>Country</u>	<u>From petroleum products (non-gaseous) expressed as a percentage of total electricity produced</u>	<u>From hard coal and coke expressed as a percentage of total electricity produced</u>
Belgium	52.0	12.5
Denmark	64.2	35.7
France	39.5	14.2
Germany (Fed. Rep.) ²	14.5	33.8
Ireland	66.4	1.0
Italy	60.6	1.2
Netherlands ³	12.3	2.9
UK	26.1	61.4

In 1973, 31.4% of the electricity produced in the Community as a whole was from non-gaseous petroleum products and 30.4% from hard coal and coke.²

11. The Commission's proposal makes allowance for combustion installations using high stacks which would diffuse emissions provided such emissions are monitored and adequate reserves of low sulphur content fuel oil are maintained. With regard to this, it should be noted that the maintenance of reserves of low sulphur content fuel at individual plants would lead to considerable investment in the supply, distribution and storage of alternative fuel.

12. It should also be noted that not all oil-fired electricity generating plants would be situated in Zones of Special Protection, and that plants outside such Zones, having a thermal power rating of less than 100 MW, from which the emissions would not contribute to raising the SO₂ content of the atmosphere within a Zone of Special Protection, would not be affected by the present proposal. Combustion installations outside these Zones, having a thermal power rating of 100 MW or more, would be affected by the provisions of Article 6, paragraphs 1 and 2.

¹ Source: Statistical Office of the European Communities
Electrical Energy Statistics 1973 (Published November 1974)

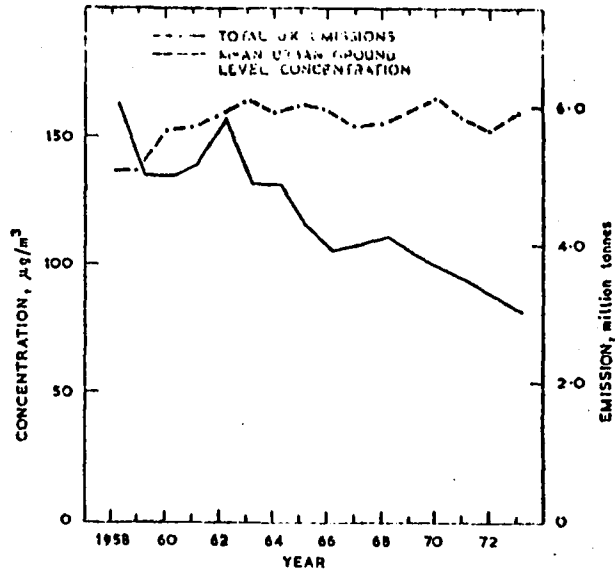
² In Germany, 24.6% of the electricity produced in 1973 was from brown coal

³ In the Netherlands 79.7% of the electricity produced in 1973 was from natural gas

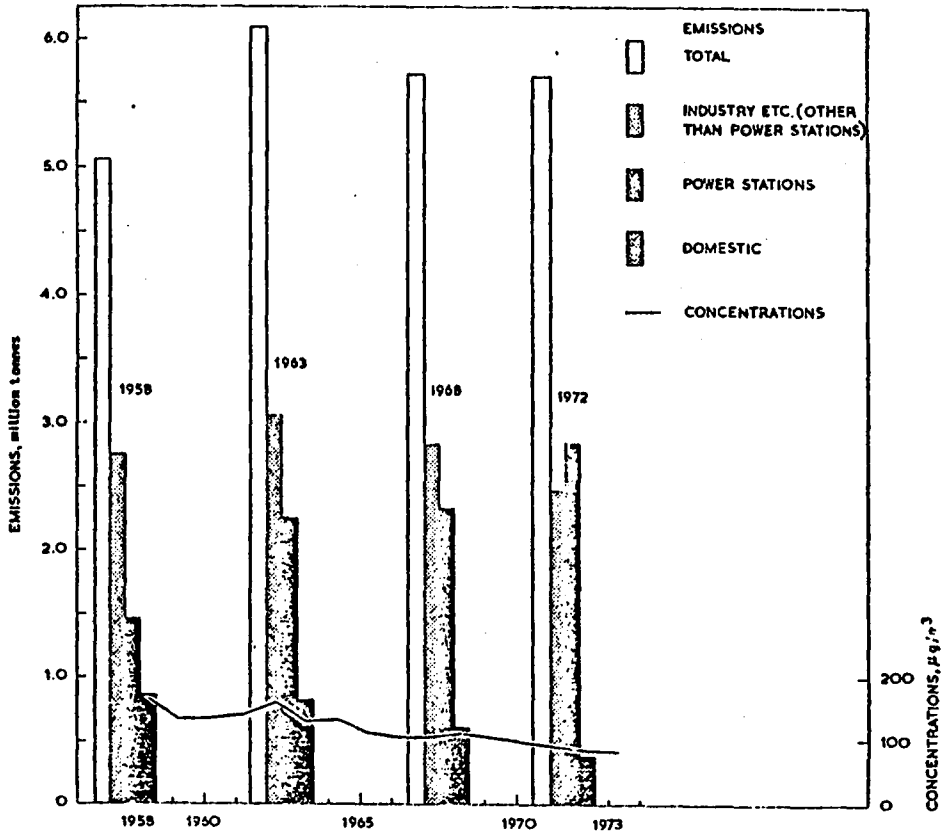
13. Article 8(a) of the proposed Directive would exempt installations using flue gas desulphurisation techniques. Considerable work has been carried out on flue gas desulphurisation, and "throw away" processes are now considered to be proven technology in the United States, USSR and Japan. Costs however are high, and the report of the United Nations Economic Commission for Europe on the second seminar on desulphurisation of fuels and combustion gases, gives the cost of the installation of lime/limestone scrubbing systems as being in the range of \$60-\$90 per KW.

14. It should, however, be borne in mind that an increase in future energy consumption does not necessarily imply an increase in SO₂ emissions, because there can be changes in the proportions of different forms of energy used. Thus, a higher proportion of low or zero sulphur energy, e.g. nuclear energy, gas or low sulphur crude, would have a positive impact on total SO₂ emissions. In this respect, the implications of North Sea Oil and the increasing use of nuclear energy for electricity generation must be considered.

15. While industry and electricity producers would be most seriously affected by the present proposals, work in the United Kingdom would lead one to believe that ground level concentrations of sulphur dioxide in urban areas are more directly affected by domestic consumers than by industrial or electricity producers. This is illustrated by the two following graphs:



SULPHUR DIOXIDE IN THE UNITED KINGDOM



SULPHUR DIOXIDE EMISSIONS BY VARIOUS CLASSES OF CONSUMER, AND MEAN URBAN CONCENTRATIONS IN THE UNITED KINGDOM

Taken from "Fuel Consumption, Smoke and Sulphur Dioxide Emissions and Concentrations, and Grit and Dust Deposition in the UK, up to 1973-4"

Warren Spring Laboratory

1976

C Comments on the Commission Proposal

16. Paragraph 7 of the preamble to the Proposal for a Directive states that "Whereas in accordance with the Declaration of the United Nations Conference on the human environment adopted in Stockholm, care should be taken to ensure that activities carried out in one state do not cause any degradation of the environment in another state, e.g. by transfrontier pollution". As the term "any degradation" is particularly sweeping, and may refer even to very small quantities of particulate matter, the Committee feels that the term "degradation of the environment" needs quantitative definition by the Commission.

17. Article 3 and 4 provides for the designation of Zones of Special Protection, in which combustion installations using fuel-oils must, except as provided for in Article 8 of the proposed directive, burn only low sulphur fuel-oils or equivalent fuels. No provision has been made in the Commission's proposal for the de-designation of Zones of Special Protection, should SO₂ and particulate concentration fall below the maximum levels set out in Annex I and continue to remain below these levels. It would seem sensible for the Commission to introduce a mechanism for the de-designation of Zones of Special Protection, provided that systematic monitoring be maintained. Should levels rise again, then areas could be re-designated Special Protection Zones.

18. The Commission's draft, as stated above, does not refer to solid fuels. In some cases these can contribute significantly to suspended particulate matter and SO₂ pollution levels, and this should increase if there is an increase in the use of solid fuels. The proposal would thus appear to be unsatisfactory if the pollution caused by the combustion of coal would have to be compensated by stricter pollution control measures on fuel oils. Although for large users of coal, particulate removal technology, though extremely costly, is available, it can be understood that until some commercially economic method of removing SO₂ from coal combustion (e.g. flue gas desulphurisation, gasification) is available, the inclusion of solid fuel in the proposal could have serious consequences for the use of such fuel.

19. While considering fuel oils, thought must be given to the possible consequences of a proposal aiming at the reduction of sulphur emissions from the combustion of solid fuels. The reduction of sulphur

and particulate matter resulting from the combustion of coal is possible only through the desulphurisation of flue gases, a particularly expensive process that would require enormous capital outlay. The British Central Electricity Generating Board has estimated that a future directive similar to the present proposal by the Commission, but aimed at solid fuels, in which emissions from high stacks were not exempted, would imply capital expenditure of well over £1,500 million (at 1976 prices) for the CEGB plants likely to be affected, which together with substantial running costs could increase the price of electricity from coal by over 30%.

20. No provision has been made for installations burning a combination of fuels, e.g. a refinery may use gas in some furnaces and oil in others. While such installations are usually subject to local environmental regulations, your draftsman has been informed that it is common practice, where there is a national limit on fuel oil sulphur content, to treat a number of existing sources in an installation as one source, so that the sulphur limit should apply to the total fuel burned and not just to the residual fuel oil part. This could be covered in the Directive, Article 8, paragraph 1, by adding a clause (d):

"Combustion installations burning a combination of fuels, e.g. oil refineries burning gas and fuel oil, provided that the combined emissions of sulphur dioxide do not exceed those that would occur from burning only low sulphur residual fuel".

21. Article 6, paragraph 1, referring to combustion installations situated outside Zones of Special Protection, having a thermal power rating of 100 MW or more and burning fuel oils, provides that these installations must burn low sulphur fuel oil or an equivalent fuel as soon as for a 24 hour period the average concentration of SO₂ and of suspended particulate matter at ground level within the area of influence of these installations has exceeded any of the pairs of the value ranges laid down in table 2 of Annex I, and continue that use until these concentrations for a 24 hour period have fallen back below the value ranges in table 2 of Annex I. This would imply that an installation might have to burn low sulphur, or equivalent, fuel, for 24 hours even though the SO₂ and/or particulate concentration might have fallen to an acceptable level several hours before the completion of the 24 hour period. The Committee thus proposes that Article 6, paragraph 1 of the draft directive be amended to read "... and continue that use until these concentrations averaged over one hour have fallen below the figures given in table two of Annex 1 for the 24 hour averages".

22. The Committee on Energy and Research would like to stress the vital importance of standardising the monitoring of ambient air, as well as the standards used for measuring sulphurous emissions. Annex II, Article 1, paragraph 2 of the Commission's proposal states: "For routine analysis Member States may allow for other methods provided that the results can be clearly correlated with those obtained by the reference method", and in Article 2, paragraph 2 and paragraph 3, states "All other methods demonstrated as being equivalent, by the Member States, may be used".

Your Committee wonders whether such "other methods" would necessarily be consistent with the intentions of this proposed Directive and feels that only the standards of the Commission in Annex II should be permitted.

23. The Committee on Energy and Research recognises the need for some form of Community action in order to maintain fair competition without endangering the security of energy supplies, as uncoordinated national measures to combat air pollution could increase the production costs of industries in Member States with rigorous desulphurisation requirements, thereby adversely influencing the competitiveness of those industries.

D Conclusions

24. The introduction of a measure such as the present proposed Directive could have serious consequences for the equilibrium of the energy market. In certain areas fuel oil would be placed at a disadvantage in relation to solid fuels. While this, from the point of view of Community energy policy, might not be inappropriate, it would tend to nullify the results obtained from the present proposal. Thus a directive for solid fuels would, logically, have to be introduced in the near future. This would have most serious consequences for the Community's energy policy

as the costs of flue gas desulphurisation, the only satisfactory means of reducing SO₂ or particulate emissions resulting from the combustion of solid fuels, would be extremely high, far higher than the cost of desulphurising hydrocarbon products. Such a move could thus lead to a serious reduction in the use of solid fuels, with deleterious results for the Community's policy of reducing its dependence on imported sources of energy.

25. The Commission submitted to the Council in February 1976 a document (COM(76) 48 final) (Doc. 5/76) containing a proposal for a Council resolution concerning the determination of criteria for Sulphur Dioxide and Suspended Particulate Matter in urban atmospheres, and a proposal for a Council Directive concerning health protection standards for sulphur dioxide and suspended particulate matter in urban atmospheres.

26. The economic effects of the proposed Directive and its implications for the use of energy should be assessed. A critical point is the quantity of low sulphur fuel oil that would be required for the Zones of Special Protection. This must be determined by the individual national authorities. When this quantity is known, an estimate can be made of the amount of low sulphur crude and/or residual desulphurisation required. If the demand for low sulphur fuel could be met by low sulphur crude, the economic/energy effect would be small, especially if most of the low sulphur crude could come from the North Sea. On the other hand, if residue desulphurisation should be necessary, this would involve high capital costs and is in itself an energy consuming process.

27. Consequently, the Committee on Energy and Research, while recognising the danger of SO₂ in the atmosphere and the need for coordinating national anti-pollution measures so as to safeguard fair competition whilst maintaining the security of energy supplies, feels that the Commission must provide more information about the costs involved for energy producers and consumers, so that the effects on energy policy of the present proposal, including the possible costs, could be examined in the framework of an overall strategy on emissions of sulphur dioxide and suspended particulate matter. The Committee on Energy and Research requests the Committee on the Environment, Public Health and Consumer Protection to incorporate this requirement into its motion for a resolution, as well as the proposals contained in paragraphs 20 and 21 supra.