



**The Large Combustion Plant Directive:
An Analysis of European Environmental Policy**

Catherine A. Ramus

Oxford Institute for Energy Studies

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ABBREVIATIONS

BAT	Best Available Technology
BATNEEC	Best Available Technology Not Entailing Excessive Costs
ESI	Electricity Supply Industry
FGD	Flue Gas Desulphurization
LCP	Large Combustion Plant
LCPD	Large Combustion Plant Directive
SEA	Single European Act

1 INTRODUCTION

Acid rain, or deposition of a combination of sulphur dioxide (SO₂) and nitrogen oxides (NO_x) in the form of acidified precipitation, causes environmental damage, the negative effects of which were first linked to lake and forest death in the early 1950s by Swedish scientists. One of the main sources of SO₂ and NO_x emissions was discovered to be coal- and oil-fired combustion power plants. The nature of acid rain is such that winds and weather patterns can transport SO₂ and NO_x plant emissions up to several hundred miles away from their source before they return to earth as acidified rain. Since acid rain is a regional, multinational environmental problem, supranational forums, first instigated by Scandinavian countries, have guided the development of solutions. In 1982 the Federal Republic of Germany (FRG) recognized the link between plant emissions and German forest die-back and pressed for European Community action.

The European Commission received pressure from the public, the European Parliament, and the Germans to address the acid rain problem. They used the Large Combustion Plant Directive (LCPD)¹ to improve Community air pollution policy by extending it to regulation of stationary sources (i.e. large combustion plants (LCPs)). Their proposal, submitted in December 1983, closely mirroring recently adopted FRG legislation, ambitiously proposed emission reduction from both new and existing plants totalling 60 per cent of SO₂ and 40 per cent of NO_x and plant dust by 1995.

But, for a number of reasons this proposal met a cold response in the Council of Environmental Ministers. Negotiations lasted five years. Many Member States objected that the Commission proposal had been shoddily prepared, and showed a bias toward the German, technology-based solution. Including both new and existing plants as well as rapid and large emission reduction goals, the proposal entailed huge implementation costs for the poorest developing Member States and for the United Kingdom (UK), whose electricity supply industry (ESI) consists mainly of coal-fired plants.

Furthermore, there was little legislative or legal precedent for the LCPD as an "harmonization" Directive. The large combustion plant proposal was an ambitious one in the context of 1983 EC environmental policy. The Council did not adopt the Framework Directive (84/360/EEC)² on combating air pollution from industrial plants until 28 June, 1984. Article 100, the legal basis under which the LCPD was proposed, delineated the Community's right to eliminate distortions in competition and technical barriers to trade, but in no way explicitly covered an environmental policy harmonization programme like the LCP proposal. The Single European Act (SEA), giving Community environmental policy an

¹ O.J. No L 336, 7.12.1988.

² O.J. No L 188, 16.7.1984, p.20.

undisputable legal mandate under Articles 100 (a) and 130 (r, s and t), did not exist until 1987. In addition, the Community lacked a legislative precedent for mandating rollbacks of air emissions from existing industrial plants.

Within the Commission Directorates, LCPD environmental policy considerations were at loggerheads with energy policy. Scientific evidence on acid rain was inconclusive or at least debatable in 1982, causing Member States (the United Kingdom most vocally) to question the huge costs attached to flue gas desulphurization (FGD) installation in their existing plants. Also the Community was split internally regarding environmental opinions and policy, with some Member States more willing and able to spend on environmental protection than others.

Thus the LCPD, when eventually adopted in November 1988, marked a watershed in European Community environmental policy. After years of tortuous negotiations the Council adopted a Directive mandating "best available technology not entailing excessive costs" (BATNEEC) criteria for new LCPs and requiring existing plant emission reductions from between 29 to 70 per cent of Member States' 1980 levels of SO₂, NO_x, and dust by 2003.

This agreement clearly represents a watered-down version of the Commission's original proposal. It does not harmonize Member State policies, since it provides for a range of reduction goals. It extends the deadline for emission reduction from 1995 to 2003. Whereas new plant emissions were included in the reduction proposals of the original Commission proposal, they are no longer included in these less stringent Directive goals.

The LCPD presents an ideal case study for examining the power struggle between Community institutions' and Member States' special interests during a time when the Community environmental policy's role was evolving. This paper will describe how the shape of Community environmental policy changed, allowing the Council to adopt this much modified LCPD. Further it will show how, in light of existing Community institutions and Member State policies in 1983, the original proposal was not only ambitious but also politically unfeasible.

The paper has five parts. Part I outlines the acid rain problem in the EC and summarizes the main issues in the LCPD debate. Part II summarizes the Community's legal and philosophical approaches towards the environment. Part III describes the formulation of the LCPD proposal in the context of EC environmental policy. Part IV analyses the domestic policy considerations in EC Member States and the shifting interests and compromises which led to the eventual adoption of the LCPD. Part V concludes by briefly comparing the process of adoption of the LCPD with that of the more stringent vehicle emissions Directive.

2 ACID RAIN AND THE EUROPEAN COMMUNITY: ISSUES AND DEBATES

Despite extensive work by the scientific community, acid rain, like many environmental hazards, is not fully understood. Because acid rain is a transboundary externality (meaning that harmful emissions affect other countries) with deposition sometimes reaching hundreds of miles from the source of emissions, countries may pay to reduce the burden on neighbouring countries, not their own.³ Furthermore, since acidification debilitates environmental amenities like lakes and forests over time, spending now reduces the burden to future generations (i.e. benefits them) while the cost is borne by the current energy consumers. Thus, for those Member States who suffered immediate consequences (FRG), whose sensitivity to environmental issues for the sake of present and future generations was greater (FRG, the Netherlands, Denmark), or who had less of the costs to bear (France and Belgium), EC acid rain legislation was politically and economically acceptable. For others who felt that their cost was excessive (UK and some of the developing Member States), acid rain legislation met a cold response.

2.1 Member States' Contributions to Acid Rain

SO₂ and NO_x do not necessarily drop to the ground in the same country in which they are emitted. For instance, much of the UK's acid deposition falls on Scandinavia. Different countries emit different amounts depending upon their industrial development and public sentiment concerning emissions.

In 1986, a report entitled *Europe's Air - Europe's Environment* was prepared as evidence of the acid rain problem for the Nordic Council's International Conference on Transboundary Air Pollution. This data shows that five factors affect a country's sulphur and nitrogen "budgets". Some of the gases that countries emit become acid deposition in their own country, and some are "exported" by wind and weather across borders. Countries also "import" acid deposition from other countries. Thus, the cleanliness of air in a country is affected by the actions of neighbouring countries as well as their own emissions.

The report shows that most developed countries, like the UK and Germany, export far more SO₂ and NO_x than they import from other countries. For instance on average between 1981 and 1982, the UK exported 3,750 thousand tonnes of SO₂ while importing only 428 thousand tonnes.⁴ The FRG, not benefiting from being an island, produced 3,660 thousand tonnes of SO₂ and had total deposition (own emissions plus imports) of 2,744 thousand tonnes. Whereas, the UK produced 5,340 thousand tonnes and with imports of 428 thousand tonnes still only had

³ Britt Aniansson, et al, *Europe's Air - Europe's Pollution*, Stockholm, gives European comparisons.

⁴ See tables included at the end of this chapter from *Europe's Air - Europe's Environment*.

deposition of 2,018 thousand tonnes. Thus, countries' geographical locations determine the net amount of acid deposition within their borders and consequently the amount of emissions which Member States feel are acceptable.

In addition to geographical considerations, countries' degrees of industrialization affect the level of their emissions. As of 1980, the UK, Italy, France, and West Germany produced 86 per cent of all EC emissions.⁵ LCPs were the major source of SO₂, with fossil fuel-fired plants constituting the largest sub-category. Of the 9-10 million tonnes of NO_x emitted in the EC in 1980, about one-third came from Germany, followed by the UK, France, and Italy. Coal-fired power plants accounted for 30 per cent of all EC NO_x emissions. This 1980 data reveals that the largest and most industrialized Member States (with the greatest dependence on LCPs) contributed more SO₂ and NO_x than the smaller and/or less developed Member States.

The total emissions statistics imply that large industrialized Member States must do the most to clean up their emissions. But, as the Dutch Environmental Council President suggested in 1986, a more rational picture might be to weight emissions data using Member State area, population size and GDP. Several reasons were given for this approach. Larger countries have a larger capacity to absorb SO₂. Emissions should be the same per capita Europe-wide. Countries that create more wealth (reflected in size of GDP) should be entitled to larger

⁵ This SO₂ and NO_x emissions information was presented in 1985 by the Commission at the request of the Council. Note that this data does not include Spain and Portugal because they were not yet members of the Community, nor was complete data available on the other ten countries. The base year of 1980 was used despite the objections of the UK who preferred 1970, wanting credit for control efforts begun in that decade.

Percentage of Total Community SO₂ Emissions (1980)

<u>High</u>		<u>Medium</u>		<u>Low</u>	
UK	26.7	Belgium	4.3	Ireland	1.2
Italy	21.7	Netherlands	2.7	Luxembourg	0.1
France	19.8	Greece	2.6		
FRG	18.3	Denmark	2.5		

Percentage of SO₂ Emissions from Large Combustion Plants

UK	76	France	55
Denmark	67	Ireland	45
Greece	66	Italy	45
FRG	63	Belgium	45
Netherlands	62	Luxembourg	0

[Sec(85)925, Brussels, 20.6.1985]

emissions. Using this Dutch formula, Germany, France and Italy's per cent reduction requirements would be less relative to that of the UK.⁶

The transboundary geographical nature of the acid rain problem suggests that a multinational, regional policy is necessary to its solution. The above data shows that LCPs constitute major emission sources, and thus, any effective and comprehensive air pollution control programme directed at acidification reduction must include control of these stationary sources. How much each Member State should reduce (complicated by differing national emissions, population size, country size and GDP) presented the difficult demographic question to which the EC Commission made its proposal.

2.2 The Acid Rain Issue in the Context of EC Environmental Debate

The central debate over the LCPD surrounded the issue of environmental protection in light of inherent economic costs. If Member States required their industry (mostly electricity supply industry-ESI) to install environmental protection technology, the resultant higher energy costs would affect their citizens and their economic competitiveness internationally. Dependence of some Member States on coal-fired energy production versus other Member States with more fully-developed nuclear programmes raised equity questions. With the LCP proposal, Member States like the UK would bear far greater expense than other Member States, like France and Belgium, which relied less heavily on high-sulphur coal burning. The most controversial aspect of the debate involved the requirement to modify *existing* plants because the technology was much more costly and relatively new and untried when the Commission made their proposal. However, there was a precedent within Community legislation for expecting *new* plants to install BATNEEC. Another dimension of the debate included discussions over which Member States had coal that was high versus low in sulphur, since emissions reductions could be achieved by switching away from dirtier coal sources and lignite.

Within this "who will pay" debate, there was the separate question of who could afford to pay. Some developing countries argued that already developed countries, like the UK, France, the FRG, and Italy, who were the primary emitters of SO₂ and NO_x gases, should pay for environmental protection. However, countries like Ireland, Spain, Greece, and Portugal, wanted to maintain their right to burn indigenous, high-sulphur fuels (often lignite) to continue their development. These developing Member States claimed they could not afford the same high standard of technology that the FRG had already legislated.

From the beginning, a philosophical difference emerged over how much environmental protection is sufficient, but not excessively costly. The UK's evolving belief in the environmental concept of critical loads, i.e. using the environment's cleaning capacity (in the case of SO₂ and NO_x, the air) to determine

⁶ Haigh, Conference on Acid Rain, London, May 4, 1984, p. 73-75.

the amount of environmental protection necessary, affected this cost debate. The UK believed that when emissions reach the point where they damage the environment (i.e. make the air unhealthy) then technology should be applied to maintain the emissions below this damaging level.

Two factors complicate this critical-load theory. First, scientists are uncertain how much damage emissions inflict on the environment. Second, because of weather patterns, they do not know where these damages will occur. Thus, people disagree about the reduction level which would yield clean enough air so as not to harm lakes and trees, yet not excessively clean so as to impose an undue economic burden. The European Environmental Bureau, an organization which represents environmental groups within the EC, and Scandinavian environmentalists also subscribe to the theory of critical loads. But, they state that 75-80 per cent emission reduction is necessary to avoid harming the environment, whereas the UK originally refused to endorse the Commission's proposed 60 per cent reduction.

This critical-load concept conflicts with the belief of other Member States and the Commission staff at Directorate General XI⁷ (DG XI) that the Community is responsible for keeping the environment as clean as possible for posterity. Thus, Best Available Technology (BAT) criteria should, in their opinion, be applied whenever technology exists which does not involve excessive costs (their definition of "excessive" often differing from the UK's). This philosophical difference boils down to the issue of how the environment is best regulated - with technology to avoid all possible environmental damage, or based on ambient standards which take into account the self-cleaning, absorptive capacity of the environment.

A statement in a recent article by William D. Nordhaus illustrates these philosophical differences surrounding environment policy: it argues for no action on global warming until scientific evidence has caught up with environmental fervour:

*Let's instead look at the economics of climate change, the possibilities of a sensible compromise between the need for economic growth and the desire for environmental protection.*⁸

For those who follow environmental policy debates between Member States in the EC, this argument sounds very familiar. Many accused the UK of using the scientific-proof argument as a stalling device.⁹ Tension existed between countries

⁷ Directorate General XI consists of Commission officials responsible for environment, consumer protection, and nuclear safety.

⁸ William D. Nordhaus, *The Economist*, 7 July, 1990, p. 21.

⁹ See Sonya Boëhmer-Christiansen, "Black Mist and the Acid Rain: Science as Fig Leaf of Policy", in *The Quarterly* for more on using the science as a stalling device.

like the "greener than green" FRG, the Netherlands and Denmark and the "show me the scientific proof" UK.¹⁰

A seemingly insurmountable disparity between those who supported best available technology and fostering the whole environment for future generations versus those who support cost-benefit analysis based on scientifically proven environmental critical loads is evident in the case of the LCPD. The polar relationship between foot-dragging, environmentally-hesitant countries, like the UK, and enthusiastically "clean" countries like FRG, the Netherlands, and Denmark can be expanded to include the other eight Member States at varying points of "greenness" on the axis.

¹⁰ Note that the FRG was an opponent of acid rain legislation until 1982 when, because of internal public pressure, Germany reversed its position. Four years later in 1986 the UK accepted scientific evidence for the first time with the Central Electricity Generating Board recommending FGD installation in several plants. Thus, the UK's conversion came four years after and in a more restrained manner.

These tables show the actual amounts involved in thousands of tonnes of SO₂ per year. Far less data is available on nitrogen oxide emissions and nitrogen deposition than on sulphur.

Sulphur Budgets for the States of Europe. Emissions and Deposition in Thousands of Tonnes of SO₂ per Year.

State	❶	❷	❸	❹	❺
Austria	440	316	124	720	844
Belgium	810	638	172	246	418
Czechoslovakia	3,000	2,100	900	1,070	1,970
Denmark	456	360	96	160	256
Federal Republic of Germany	3,630	2,338	1,292	1,452	2,744
Finland	540	356	184	544	728
France	3,600	2,042	1,558	1,690	3,248
German Democratic Republic	4,000	2,888	1,112	664	1,776
Hungary	1,632	1,178	454	666	1,120
Iceland	12	10	2	50	52
Ireland	172	128	44	110	154
Italy	3,800	1,804	1,996	809	2,805
Netherlands	480	370	110	314	424
Norway	150	102	48	590	638
Poland	4,300	2,576	1,724	1,756	3,480
Sweden	550	348	202	968	1,170
Switzerland	124	92	32	298	330
United Kingdom	5,340	3,750	1,590	428	2,018
USSR	16,200	7,922	8,278	6,786	15,064

❶ The country's own total emissions; ❷ 'exports' across borders; ❸ deposition from own emissions; ❹ 'imported' deposition; ❺ total deposition (from country's own and 'imported' emissions)

Nitrogen Budgets for some European States. Emissions and Deposition in Thousands of Tonnes of NO₂ per Year

State	①	②	③	④	⑤
Belgium	290	269	21	130	151
Denmark	181	172	9	49	58
Federal Republic of Germany	1,895	1,487	408	418	826
France	1,297	940	357	515	872
Ireland	60	59	1	9	10
Netherlands	401	388	13	66	79
Norway	102	88	14	122	136
Sweden	247	183	64	183	247
United Kingdom	1,888	1,533	355	95	450

Figures for sulphur are based on EMEP calculations for October 1980-April 1981 and March-October 1982 (EMEP/MSC-W) and on *Strategies and Policies for the Abatement of Air Pollution*(ECE/EB/AIR/rev.1/20-2-85). Nitrogen data is from R. G. Derwent, *The Nitrogen Budget for the UK and North West Europe* (ETSU Report R37, fig. 36, 1985).

3 THE EUROPEAN COMMUNITY AND THE ENVIRONMENT

The EC and its Member States underwent years of tortuous negotiations before the Council adopted the LCPD in its much-modified form. This section explains the legal basis of the Community's environmental policy and the principles guiding EC environmental policy before and during the LCP proposal.

3.1 The Legal Basis of EC Environmental Policy

The six founding Member States (Belgium, France, FRG, Italy, Luxembourg and the Netherlands) did not include specific provisions for Community environmental policy when they created the European Community with the Treaty of Rome in 1957. Not until October 1972, when the Community Heads of State and Government met, soon after the Stockholm Conference on the Human Environment, did they acknowledge the need for Community economic growth to be "linked to improvements in living standards and quality of life of its citizens and to protection of the environment and natural resources".¹¹

On 22 November, 1973, the Member States adopted the First Community Action Programme on the Environment outlining the Community's environmental policy mandate. The mandate included the improvement of Community living standards to provide clean air; pure water and food; access to nature as uncontaminated as possible; the elimination of distortions in competition and technical barriers to trade due to differences between national environmental legislation; the regulation of pollution that crosses national boundaries. The legal basis for this policy derived from Article 100 of the Treaty of Rome which makes reference to the elimination of distortions in competition and barriers to trade. This flimsy legal basis greatly limited the Commission's flexibility when proposing environment initiatives. For the LCPD, the UK House of Lords questioned the legality of the proposal under Article 100, saying that its intent was not trade harmonization.

Increasing world awareness of environmental concerns, punctuated by the work of the United Nations' World Commission on Environment and Development on sustainable development (1983-1987), supported the inclusion of environment provisions in the Community's legal framework. In 1987, the Community added an explicit legal basis for EC environmental policy to the Treaty of Rome in SEA amendments Article 100 (a)¹² and 130 (r,s,t) which endorsed the above mandate

¹¹ Commission of the European Communities, *The European Community and the Environment*, p. 11.

¹² Prior to the SEA, environmental legislation was adopted by unanimous approval of the Council. Now it is possible for environmental measures that relate to the internal market (Art. 100 a) to be adopted by qualified majority. This change in procedure effected the Directive setting emission standards for large cars which was adopted over the opposition of Denmark. To date Article 100(a) has been used in the environmental area to harmonize product standards through qualified majority voting, but seemingly does *not* apply to Directives, like the LCPD, which affect stationary source emissions.

and the principles listed below. Article 100 (a) (3) provides that the environmental dimension be an integral component of Community policies with "a high level of protection" as the basis for environmental measures and recognizes the inextricable overlap between the Internal Market and the environment.

After the original Treaty of Rome, the Community was enlarged from the original six Member States to its current size of twelve, including Denmark, Ireland and the UK (1973), Greece (1981), and Portugal and Spain (1986). Each new Member State brought a new environment-policy opinion to the Community. Noticeable differences between Member States in policy and philosophical approach, coupled with differing development needs, complicated the Community's search for a common environment policy. The five years of negotiation over the LCPD provide evidence of this complexity.

3.2 The Community's Environmental Principles

There are four basic principles that guide the development of environmental policy in the Community. These principles have been developed since 1973 in the action programmes and have gained momentum in light of the Internal Market harmonization process. First, the Prevention Principle (stated explicitly in Art.130(r) of the Treaty and Fourth Action Programme (para. 2.1.1)) required that irreversible damage to the environment be prevented. Second, the Polluter Pays Principle, stated those who pollute pay the costs of environmental protection and product standard regulations. Third, the Subsidiarity Principle, stated that primary responsibility and decision-making competence rest with the lowest possible level of political authority (i.e. local over national, Member State over EC Commission whenever possible). Fourth, the Principle of Economic Efficiency and Cost-effectiveness, provided for use of appropriate economic incentives to achieve environmental protection goals with the lowest possible costs.

These principles, while not mutually exclusive, often conflict in degrees. These conflicts appear in the LCPD negotiations. For instance, some Member States endorse the Prevention Principle more whole-heartedly than others. The Commission philosophically supports the idea that if technology exists to prevent SO₂ and NO_x emissions (as it does in the form of flue gas desulphurization (FGD) technology) then prevention should be achieved even at considerable economic cost. Other Member States, the UK in particular, believe that the Cost-effectiveness Principle should play the major determining role in defining the correct level of pollution control.

The Polluter Pays Principle also affected Member States' LCP considerations. Since it is Community policy that the LCPs pay the cost of

The co-operation procedure set out in Art. 149 of the Treaty also allows for increased influence of the European Parliament over environmental policy-making. In the case of the Directive for emissions of hydrocarbons and nitrogen oxides, the Parliament was able to press the Council for stricter standards. In June 1989, the Council adopted by a qualified majority a measure mandating catalytic converters for small cars.

emission reductions, Member States' electricity supply industries will pay different amounts depending on their ownership (i.e. national ESIs versus privately-owned or public stock-held ESIs) and especially on plant-type (coal-fired versus nuclear and hydro versus gas and oil). In the case of the FRG, their primarily privately-owned ESI spread the cost over a large number of stockholders, avoiding the need to increase tax revenue to install FGD technology.

Because of the Subsidiarity Principle, most environmental legislation, including the LCPD, takes the form of Directives. Each country implements Directives, resulting in different implementation among Member States. Even though the rationale given for EC environment policy under Article 100 is the need to harmonize, most environmental Directives, such as the LCPD, do an imperfect job. The original proposal set equal emission reduction levels for each Member State, but the Council, against the opinion of the Social and Economic Committee and the advice of the Commission, changed these to disparate emission reduction levels. In addition, the norm is for a Directive to set a minimum standard and to allow more zealous Member States to enforce a higher standard of protection. In the LCPD case, the FRG to date has achieved its LCPD emission reductions and is expected to reduce further as technology permits.

The LCPD is a case where DG XI wanted an acid rain proposal passed and justified it as an "harmonization" Directive. Without the SEA's Article 130 (r), under which the LCPD was finally adopted, the proposal had questionable legal foundation. And the Directive in its final form could not truly be considered "harmonization" legislation since Member States will have very different policies and levels of emission reduction even after the LCPD is implemented.

4 THE FORMULATION OF THE LCPD PROPOSAL

There were numerous pressures on the EC Commission to propose a Community acid rain policy. As public awareness of the acid rain problem increased, persuasive, increasingly-publicized evidence linked SO₂ and NO_x plant emissions to environmental damage. Nordic countries, Germany, and the European Parliament pressed for Commission action. The Commission proposal of 19 December, 1983¹³ followed the strong institutional and growing public mandate for expansion of Community air pollution policy.

4.1 Pressures on the Commission

The 1950s and 1960s brought the first evidence that transported SO₂ was causing lake acidification in Sweden. Subsequently, Nordic countries became increasingly vocal advocates for international agreements to reduce harmful emissions. The 1970s saw growing national support in the form of new policies addressing emission reduction, largely as a result of a series of international conferences spearheaded by Scandinavian governments. The 30 Per cent Club is the most important example of this international trend. In June 1983, the executive body of the Geneva Convention called for 30 per cent reduction of SO₂ from 1980 national levels by 1993. Formalized in Helsinki in 1985, signatories became members of the 30 Per cent Club. Of the four major emitting Member States, the UK is the only one not to join the Club.

In June 1981, the EC became a party to the UNECE Geneva convention on long-range transboundary air pollution pursuant to Council Decision 81/462/EEC¹⁴, signifying its support for international action on the problem. Council meetings in December 1982 and June 1983 discussed the air pollution issues. At the same time, the European Parliament's membership was becoming increasingly vocal about the acid rain issue, prodding the Commissioners and staff to address the problem. This Community activity paralleled the Stockholm Conference on Acidification of June 1983, which defined guidelines for action at national and international levels. Thus, the Commission proposal of December 1983 can be seen as a Community response to international pressure as manifest in growing Member State government and representatives' concerns.

4.2 The Role of West Germany

West Germany's actions particularly influenced the Commission proposal. In June 1982, the FRG submitted a memorandum to the Council asking that the Commission give greater priority to air pollution prevention and that the Commission submit a proposal to the Council by the end of 1982. Germany's request reflected its new-found national zeal for air pollution control resulting

¹³ Com(83) 704 Final, O.J. No. C 49, 21.2.84, p. 1-7.

¹⁴ O.J. No. L 171, 27.6.1981, p.11.

from evidence of forest die-back from acid rain. This reflected a reversal by the Federal Government in Bonn in its international position on acid rain. Germany had previously dissented from international agreements to curtail air pollutants.

After its reversal, Germany adopted in July 1983 Federal legislation reducing emissions from new and existing LCPs. German industry, viewing the legislation as an increased economic burden and an impediment to German competitiveness, pressed their government to instigate Community-wide regulations. (Indeed, the German regulation, according to a 1990 appraisal, has cost DM 50 billion since 1983.¹⁵) Germany informed the Commission of its intent to adopt this initiative unilaterally and requested the adoption of equally-stringent measures for all Member States. The Commission responded by initiating "harmonization" legislation, written by a German DG XI staff person, which closely resembled the provisions of the German Large Combustion Plant Ordinance.

4.3 The Proposal of December 1983

The Commission proposal, like the German legislation, used flue gas desulphurization (FGD) technology as a guide for setting emission limit values. Member States were to draw up plans by December 1986 for progressive reduction programmes leading to total emission reductions of 60 per cent of SO₂ and 40 per cent of dust and NO_x by the end of 1995 (from a 1980 base line). Equal "bubbles"¹⁶ of emission reductions for these three categories could be achieved in a manner of the Member State's choosing. A Member State could use a combination of strategies including installing FGD units in existing plants, decommissioning old plants, building new plants using BATNEEC, switching from high sulphur to low sulphur fuel, and/or switching to nuclear or natural gas power generation, as long as it reached the 1995 emission reduction target.

In this plan, every Member State had the same emission reduction target, regardless of existing plant structure. New and existing plants were included under this target. This point was important to the UK's reception of the proposal. Since their plants were relatively new, it was unfeasible, in their view, to abandon them as other Member States with older plants could do. The proposal provided guidelines for measuring and reporting emissions to the Commission, who would oversee the harmonization of programmes and compliance throughout the Community.

¹⁵ Bundesministerium fur Umwelt, Naturschutz und Reaktorsicherheit (BMU), *Umwelt*, 1/1990, p.9, Bonn 1990 from Boehmer-Christiansen's article "The Assessment of Acid Rain", April 1990.

¹⁶ "Bubbles" are a regulatory tool used by the EC whereby each Member State controlled emitters in a manner of their choosing within their geographic boundaries (as if a bubble were created over each country).

4.4 Developments within the Commission

DG XI staff enthusiastically proposed air pollution legislation prior to and during 1983. As early as the First Action Programme (1973) sulphur compounds and NO_x were mentioned as needing risk evaluation. In July 1980 the Council adopted a Directive on air quality limit values and guide values for SO₂ and suspended particles.¹⁷ A December 1982 Council Directive on limit values for air-borne lead¹⁸ became Community law. Product standard legislation on (i) SO₂ content of certain liquids, (ii) relating to the measures to be taken against pollution of the air by gases from positive ignition engines of motor vehicles, and (iii) on lead content of petrol¹⁹ demonstrated the proactive policy of the Commission on air pollution control.

The LCP proposal, however, marked the first time that DG XI strayed so far into the legislative territory of another Directorate. Not surprisingly, the LCP proposal met with resistance from DG XVII (responsible for Energy Policy). DG XVII realized that the emission reduction proposal for LCPs, the majority of which are coal-fired electricity generating facilities, had far reaching effects on its Community energy policy.

At the time DG XI circulated the LCP proposal to other DGs for comment and approval, DG XVII was drafting its 1995 energy objectives for the Community (a document similar to DG XI's action programmes). This document included statements such as: "increase the share of solid fuels in energy consumption", and "peruse efforts to promote consumption of solid fuels"²⁰, which would foster coal-burning within Community energy policy.

While the LCP proposal was by implication an anti-coal policy, it also could be seen to bolster Europe's collective nuclear programme. (It increases the cost of coal-fired production of electricity versus other methods.) Since the Community, for energy security reasons, was pressing for a more active nuclear programme at the time of the LCP proposal in 1983, DG XVII was not completely disgruntled by DG XI's proposal. (In the aftermath of the Chernobyl nuclear disaster of April 1986, Community energy policy shifted away from active promotion of nuclear power plant development.)

Some staff at DG XI and DG XVII saw the LCP proposal as instigating a struggle for territory within the Commission. DG XVII considered the proposal

¹⁷ O.J. No. L 229, 30.9.1980.

¹⁸ O.J. No. L 378, 31.12.1982.

¹⁹ O.J. No. L 307, 27.11.1975; O.J. No. L 197, 20.7.1983; and, O.J. No. L 197, 22.7.1978.

²⁰ Francis McGowan, "Energy Policy", December 1989, p. 547.

a "fait accompli"²¹, highlighting the ever-growing emphasis on environmental policy initiatives within the Commission. The LCPD marked the beginning of a trend where environment policy has been strengthened relative to other Commission policy areas. Now environmental concerns influence and reshape other Community policies as in the case of a recent DG XVII document titled "Communication from the Commission to the Council on Energy and the Environment".²² Thus, the quiet institutional power struggle evident in 1983 over DG XI's LCP proposal has been largely resolved; environment policy won the spotlight and energy policy now strives to become integrated with it.

4.5 Subsequent Influences

The Commission's existing mandate to create air pollution policy was gradually strengthened after the LCP proposal was submitted to the Council.

Before the LCP proposal, the Commission had already proposed the Framework Directive on combating of air pollution from industrial plants (84/360/EEC).²³ This Framework Directive was adopted by the Council in July 1984. Two principles that would become important for LCPD were in this Directive: the principles of *prevention* and *reduction* of air pollution from plants, and the principle of justifying Community policy by reference to the harmonization of economic activities in the Community.²⁴ By accepting the Framework Directive, the Council, in principle, endorsed BATNEEC for new plants and the gradual adaptation of existing plants to best available technology to reduce emissions of a list of polluting substances including SO₂ and NO_x (Annex II of the Framework Directive). This Directive foresaw the setting of emission limit values in subsequent Directives. Thus, in many ways the Framework Directive, proposed before the LCP proposal and adopted after it, acted as a legislative stepping stone to the LCPD.

Both the Third (1983-6) and Fourth (1987-92) Action Programmes, Council documents, outlined the Commission's environmental policy goals, and stressed the importance of the prevention and reduction of atmospheric pollution. But the Fourth Action Programme emphasized the importance of concentrating Community action "on the reduction at source of air pollution, *inter alia* by

²¹ A staff member at DG XVII, commented that DG XI drafted the LCP proposal without consulting DG XVII, but despite this intrusion into what had previously been solely the Energy Directorate's domain, DG XVII was in no position to stop the proposal. Political pressure for an acid rain proposal was so great that it did not matter what DG XVII thought about the proposal's impact on energy pricing and supply security.

²² COM (89) 369 final.

²³ O.J. No. L 188, 16.7.1984.

²⁴ Note that the SEA had not yet been adopted and environmental policy initiatives still had to be legally justified under Article 100 of the Treaty which talked about removing barriers to trade. The LCPD was eventually adopted under new SEA Article 130 (r).

adopting and implementing measures concerning emissions from large combustion plants".²⁵

Finally, the increased numbers of Green Party representatives elected to the European Parliament coupled with public endorsements by national and international environmental groups supporting the Commission proposal on acid rain helped strengthen the Commission's negotiating position with the Council of Ministers. Parliament and environment groups pressed for even more stringent LCP emission reductions than were proposed. The Commission saw their mandate to protect the Community's environment strengthen, not subside in the five-year period between the original proposal and the adoption of the LCPD. This public support gave the Commission sustenance against Member State pressure to water down the LCP proposal. The Council could have approved a much weaker proposal at an earlier date had it not been for the opposition of the Commission and more environmentally-sensitive Member States. By applying public pressure, the Commission influenced the outcome of LCPD negotiations and helped more fervent environmentalists gain hard-won concessions from unwilling Member States.

The trend within the Community and Member States during the five years between December 1983 and November 1988 was toward more stringent environmental regulation. The laws of the Community, policy documents (like the Action Programmes), the Framework Directive, as well as internal Parliamentary and external Member State forces were all responsible for the eventual, admittedly conditional, acceptance of an originally unpopular Commission proposal.

²⁵ OJ No L 336, 7.12.1988.

5 THE DOMESTIC INTERESTS OF MEMBER STATES AND THE PROGRESS OF THE NEGOTIATIONS

Not only was there a power struggle within the Commission over DG XI's proposal, but also Member States, as represented by their Council Ministers, struggled against this far reaching, costly proposal. To a large degree, existing Member State energy policy, environmental regulations, and attitudes toward environmental protection versus development, serve as a guide to predicting Member State responses to the Community's proposed legislation.

Beginning with the oil crisis of 1973, European energy policy shifted away from dependence on foreign oil imports and toward diversification and development of indigenous fuels and nuclear energy production. France, Belgium, Germany, and the UK sought to intensify their use of nuclear power, with differing success. France and Belgium early on shifted much of their electricity production to nuclear. In the early 1980s Germany liberalized its nuclear policy despite internal political pressure from the Green Party. In fact, the Large Combustion Plant Ordinance made Germany's nuclear programme more attractive by making coal-fired plants more costly. At the same time, the UK government faced growing national resistance to its nuclear programme because of the Sizewell inquiry of 1981-1985. Thus, the state of the Member State nuclear policy influenced their response to the essentially pro-nuclear LCPD Commission proposal.²⁶

Reliance on conventional thermal power plants is another indicator of Member State's enthusiasm (or lack thereof) toward the Community acid rain legislation. Denmark, the UK, the Netherlands, and the FRG had installed capacity per capita largely in excess of the EC average, whereas France, Italy, and Greece had close to half the Community average. Belgium and Ireland were both close to the average while Luxembourg was a special case, as it imported nearly all its electricity from neighbouring states.

As we saw in Part I, the UK, the Member State with the highest total SO₂ emissions, 76 per cent of which come from LCPs, has a highly developed capacity in and dependence upon conventional thermal power plants. Therefore, the UK was the most vocal opponent to the Commission proposal; whereas, France, with increasing dependence on nuclear power for electricity production and expectations of sharp reductions in SO₂ emissions by 1995, was supportive from the beginning. Germany, with a similar existing coal policy situation to the UK's, reacted very differently because of internal political pressure - resulting from visible forest dieback - to legislate reduction in emissions.

²⁶ Both German and Community nuclear energy policies lost popularity after the Chernobyl incident in 1986. In the view of many Europeans, Chernobyl eliminated the nuclear option. But because the UK's nuclear programme was relatively unsuccessful and the developing Member States were not pursuing nuclear energy programmes (except Spain), it is unlikely that Chernobyl modified opposition in Council to the LCPD.

In the less developed countries of the EC the dichotomy of opinion between coal and nuclear energy sources, while important, played less of a role than their differing technological resources. Countries like Ireland, Spain, Portugal, and Greece wanted electricity generation capabilities to improve standards of living, but lacked the technical capability and funds to install BATNEEC.

5.1 Domestic Energy Policies of the Member States

Information on existing Member State policies illuminates countries' special interests surrounding LCP legislation and indicates the natural coalitions resulting from the Commission proposal. The following assesses Member State regulations²⁷ and policies²⁸ as of 1983 when the Commission first made its proposal:

The "greenest" Member States, Denmark, the Netherlands, and the FRG have the strictest legislation concerning SO₂, NO_x, and particulate emissions from LCPs. These countries have published national guidelines of emission limit values. The Netherlands and Denmark both have higher standards than those that the FRG would have liked imposed at the EC level.

Federal Republic of Germany

The FRG requires "state-of-the-art" pollution control technology to be installed in new plants. Germany has traditionally subsidized its domestic hard coal industry. The FRG depends on coal, nuclear and some lignite for electricity production, with the share of nuclear steadily rising since its change in energy policy signalled by its Large Combustion Plant Ordinance in 1983. The shift toward nuclear power generation occurred before the Chernobyl accident at a time when the Community was interested in intensifying its nuclear programme as well. The FRG wanted LCP legislation precisely as strong as, but no stronger than, their recently passed Large Combustion Plant Ordinance.

The Netherlands

The Netherlands' electricity production depends primarily on indigenous natural gas, but it does import coal for power generation as well. The Dutch have comprehensive environmental legislation and support equally strict Community-wide measures.

²⁷ Information on Member State's legislation as of the 1983 proposal comes from the Commission's Explanatory Memo, December 15, 1983 issued with the LCP proposal.

²⁸ Energy policy information and data come from the OECD's *Energy Policies and Programmes of IEA Countries*, 1983 and 1988 Reviews, printed in Paris in 1984 and 1989, respectively.

Denmark

Denmark has no indigenous coal production, nor does it have a nuclear power industry. Over 95 per cent of Denmark's electricity production comes from imported coal. Denmark had the same views as its Nordic neighbours and both the government and public support environmental protection.

As a group these three Member States, the FRG, the Netherlands, and Denmark, were philosophically predisposed toward strict Community-wide standards for LCP emissions reductions.

Unlike the previous group which set national guidelines, Belgium, France, Ireland and the UK set SO₂ and NO_x emissions standards or limit values on a case by case basis:

Belgium

In Belgium, a Royal Decree sets forth general emission standards for industrial combustion plants. Over 30 per cent of Belgium's 1983 electricity generation was from nuclear plants, and projections of Belgium's further expansion of its nuclear capacity showed 60 per cent of its electricity coming from nuclear by the end of the decade. Belgium also supported a low-grade quality coal industry. The Belgians were committed to pollution control, a stance made considerably easier by its increasing nuclear capacity.

France

French legislation limited sulphur content in fuels and coal and imposed stack height requirements to limit local SO₂ concentrations. (These stack height requirements cause the emissions to travel further before deposition occurs.) France had both nuclear and coal programmes, but was actively promoting its nuclear programme in 1983, making it the country's major source of electricity generation. France has traditionally been lukewarm to pollution control within the Community, but it has generally acquiesced on environmental matters. The strong French nuclear programme made this relatively easy in the case of the LCPD.

Ireland

Ireland makes reference to "best practicable means" for determining emissions standards from LCPs, but the plans for a coal burning station at Moneypoint did not include state-of-the-art pollution control equipment. Ireland has weaned itself from oil import dependency through development of indigenous natural gas and peat resources and imports of hard coal. Environmental protection has traditionally been somewhat less of a priority than economic development for Ireland.

United Kingdom

An independent authority regulated the UK's national industry using "best practicable means" criteria and could impose emission limit values if it so desired. Not until September 1986 did the Central Electricity Generating Board (CEGB) endorse use of FGD technology in Drax and future coal-fired power stations.²⁹ The UK is a net exporter of energy, with abundant supplies of oil, gas, and coal and an established nuclear programme. Eighty per cent of its 1983 electricity generation came from coal-fired generation, many of which were relatively new plants. The UK's nuclear programme was proving to be slow and costly largely due to the publicly-bruising Sizewell water reactor inquiry. The inquiry began in 1981; not until 1985 was the final report produced. The UK was unenthusiastic toward Community environmental Directives.

While the case-by-case legislative controls on LCPs in these four Member States were quite similar, differences in attitudes toward economic development and success of nuclear programmes placed Belgium and France on the opposite side of the LCP issue from Ireland and the UK.

In contrast, Italy, Greece, and Luxembourg's LCP emissions regulations were notably vaguer than the rest of the Member States:

Italy

Italy made reference to "available technology" when determining emission standards and was subdivided into two areas in which different standards applied. The Italian government planned to increase the use of coal and nuclear power substantially in electricity generation, building new plants as well as converting oil-fuelled facilities into coal to reduce dependence on oil imports. Italy seemed supportive of environmental protection as signified by its commitment to the goals of the 30 Per cent Club. Environmental protection did not seem to have been a priority for Italy in the past, but was gaining momentum as a public issue.

Greece

Limited Greek emissions control legislation existed. Efforts focused on the control of black smoke and SO₂ in urban areas and gave authorities discretion over emission values. Greece's energy policy focused on accelerated development of indigenous fuels, mainly lignite, with some development of oil, gas, and hydro resources. Greece's chief environmental concern was air pollution control in Athens with economic development remaining its priority.

²⁹ See Jim Skea, "UK Policy on Acid Rain", *Energy Policy*, June 1988 for further information on UK policy toward European emission reduction measures.

Luxembourg

Luxembourg, a big importer of electricity, had no emission limit values. While Luxembourg produces a portion of its electricity in waste-fired thermal power plants and hydro sources, the majority is imported from Belgium and Germany. Luxembourg usually did not take a strong stance on environmental issues.

Italy, a major emitter, was under greater pressure than either Greece, the EC's second poorest Member State, or Luxembourg, the Community's biggest importer of electricity, to support the LCP proposal.

Spain and Portugal joined the Community after the Commission made its LCP proposal. Both countries were highly concerned with economic development and had few environmental protection regulations.

Spain

Electricity demand was growing rapidly at the time Spain joined the Community. Spain was in the midst of adding new coal and nuclear production capacity, with coal, including lignite, being its most important indigenous energy source. Environmental protection was a second priority to economic growth for Spain.

Portugal

Portugal imported most of its electricity but planned to develop indigenous hydro and coal resources. While concerned about the environment, Portugal, the poorest Member State, focused more of its attention on economic development.

Both Spain and Portugal needed to develop electrical capacity for their growing demand and wanted to do so as cheaply as possible with indigenous coal. Thus, they were likely opponents to a Directive which increased their costs of electricity production.

In light of existing Member State policies, the costs of the LCPD clearly accrued to the proposal's most likely opponents. That the Commission's well-intentioned acid rain solution imposed these costs on those most likely to seek to deny their necessity seems obvious. A realistic assessment of country emissions, attitudes and policy history rules out unanimous approval of the proposal.

A quote from *The Independent* newspaper mirrors the politics of environmental policy within the Community:

*In all European environment matters, the first hidden rule is that no one really expects Spain, Greece and Portugal to be up to scratch. And one quite often expects the Italians to be a little relaxed too. The real issue is whether Britain is behaving itself in the cleaner-than-thou cultural context of the industrialized northern countries such as the Netherlands, Denmark, and West Germany.*³⁰

This "hidden rule" was largely born out in the case of the LCPD.

5.2 Shifting Interests and Emerging Compromises

The Council of Environment Ministers received the LCPD proposal coldly at first. The Environment Commissioner Nerjes and the lead staff person from DG XI, Peter Stief-Tauch, were both German. Many within the Council believed the proposal was badly researched and prepared, too closely resembling the recently adopted FRG's legislative programme. It took close to two years to work out technical disputes over how the Directive would be applied in cases of refineries (a concern for the Dutch), what emission limits would apply to plant extensions, how countries could switch to indigenous coal supplies like lignite and high sulphur coal, and how to appease developing countries who considered the cost of the BAT (best available technology) excessive. Throughout the debate different Member States pressed the Commission to amend the proposal to be more favourable to their special interests and less strapped to the German technology standard and solution. In the end, a number of changes were made.

In early debates, four Member States resisted the proposal within the Council. The UK led the opposition with support from Luxembourg, Greece, and Ireland. The UK argued there was insufficient proof of a link between emissions and environmental damages. While the lack of scientific evidence was the stated reason for opposition, economic costs to consumers and industry, which were particularly high given the UK's dependence upon coal-fired electricity production, underlay its opposition. Luxembourg hesitated because modifying its single plant presented an excessive cost burden. Greece and Ireland expected to develop their indigenous coal resources in the near future and the Directive made that option more costly. The Commission singled out the UK when it promised derogations to the others if they agreed to the proposal. (Derogations, in this case, meant that the Commission would temporarily permit some Member States not to fully comply.)

Between 1984 and 1985, as the Commission worked to isolate the UK, obvious splits within the Community between developed versus developing and

³⁰ North, *The Independent*, 8 May, 1990, p. 8.

"clean" versus "dirty" countries surfaced. The UK was in the unlucky position of being the only developed, yet contentedly "dirty" Member State. The other big emitters, FRG, France, and Italy already planned to reduce their emissions. The FRG had mandated retrofitting or decommissioning by 1995 for its industry. Only 55 per cent of France's SO₂ emissions came from LCPs as opposed to 76 per cent of the UK's and France's nuclear programme made it possible for it to reduce overall emissions without prohibitive costs. Italy's LCPs emitted only 45 per cent of total SO₂ and by joining the 30 Per cent Club Italy had already committed to a 30 per cent reduction by 1993. As only a medium-sized emitter, Belgium's nuclear programme saved it from incurring huge expense in the process of complying. Other developed countries like the Netherlands and Denmark were more concerned with protecting the environment than with the cost of control. This alignment created a dynamic whereby the UK grouped itself with developing countries as allies in order to postpone agreement as well as to extract concessions (in the form of weaker provisions) from the Commission and other "greener" Member States.

When Spain and Portugal joined the Community in January 1986, the Commission's strategy of isolating the UK was no longer sensible. Both Spain and Portugal had growing dependence on coal use for power generation and therefore were likely allies of the UK. After this point, the Commission worked to convince the UK to reach agreement on reduced emissions.

The UK

In 1986 Prime Minister Thatcher and the Central Electricity Generating Board (CEGB) ended their boisterous denial of insufficient scientific evidence. In that year, Mrs Thatcher (whose stance against the coal miners during a bruising national strike in 1983-84 probably influenced her attitudes) met with Prime Minister Brundtland in Norway. And Lord Marshall, Chairman of the CEGB, toured Scandinavian lakes damaged from acid precipitation. Despite the nearly identical scientific proof of SO₂ and NO_x emissions damage to environmental amenities abroad, the CEGB changed its position.³¹ It asked permission to retrofit the equivalent of three 2,000 megawatt coal-fired power stations over the following twelve years.

The UK took its turn chairing the Council in the second half of 1986. William Waldegrave, the UK's Environment Minister, softened the UK's opposition and worked to find a compromise based on the less stringent and individually-

³¹ Lord Marshall committed that CEGB policy would be guided by the results of £5 million of SO₂ deposition research intended to bring conclusive scientific evidence to contentions of acidification damage, but his change of heart came in 1986, prior to the Royal Society and two Scandinavian academies' first report. Thus, it seems likely that his conversion had as much to do with his visit to Scandinavian forests and lakes as to new scientific evidence.

See Lord Marshall's statement in the "Proceedings of the Joint IEEP/NSCA Conference on Acid Rain", London, 19 September, 1986.

tailored reduction objectives set out by the Dutch presidency during the previous six months.

During the time they led the opposition to the LCPD in Council between 1983 and 1988, the UK's arguments changed. Lord Clinton Davis, Commissioner for the Environment from 1985 to 1989, explained how the "goal posts" moved over time as the Commission tried to convince the UK. First the UK denied cause and effect; then they argued that, notwithstanding some negative effect on the environment, effects were not linked to environmental damages like forest die-back. When denial of this became insupportable they abandoned the scientific-proof argument, saying that effects were not as great as those alleged - hence three 2,000 megawatt retrofits would be sufficient (at a cost of £2 billion). Finally, the UK argued that the age of UK coal-fired plants made it economically unfeasible to retrofit all fourteen plants. By this time the UK electricity supply industry privatization was on the horizon. (ESI privatization was part of the Conservative election manifesto in 1987 with the privatization White Paper completed in 1988³² prior to final agreement on LCPD in November.)

Why did the stream of continuously-changing UK arguments against the LCPD finally end in a resolution in 1988? The UK has been accused within the Council, the Commission and academic sources³³ of using science as a delaying tactic. But even after the scientific argument weakened, the UK found the timetable of the proposals untenable. That the UK government agreed to the LCPD just months after the 1988 ESI White Paper, when it was certain that the ESI would be privatized, points to the conclusion that resolution of the LCPD seems to have suited the UK government's need for cost certainty for its ESI privatization programme.

Other Dissenters

The UK was not the only dissenter. Italy, Spain, Portugal, Greece, and Ireland also had to be convinced. Beginning in early 1986, the Dutch Council Presidency proposal modifications laid the groundwork for eventual agreement by all those opposed. The Dutch President proposed a separate emissions target based on "objective criteria" for each Member State, but Ireland and Spain objected to the whole principle of limits on their total sulphur emissions. The UK proposed separate targets based on political acceptability and with a longer time horizon, but this plan would have led to a very wide range of abatement levels. Even with this offer, Spain and Ireland were unwilling to commit. The Belgian Presidency in early 1987 made a proposal that excluded new plants built using BATNEEC from the emissions totals and adjusted the base line for net additions to the LCP stock between 1980 and 1987. These modifications made the proposal

³² Department of Energy (1988), "Electricity Privatization".

³³ See Lord Clinton Davis's statement in the "Proceedings of the Joint IEPP/NSCA Conference on Acid Rain", London, September, 1986 and Sonya Boehmer-Christiansen's article in *The Quarterly* titled "Black Mist and the Acid Rain: Science as Fig Leaf of Policy", April 1988.

more acceptable to the developing countries and gave necessary concessions to the UK. Danish proposals lengthened the time horizon yet further but set the targets at levels that would not entail reductions much beyond those already planned by Member States.

5.3 The Adoption of the LCPD

These proposals were melded into a final proposal that considered special interests of the Member States and resulted in an unanimous agreement in November 1988. Ireland's Moneypoint plant was included as "existing" so that BATNEEC was not mandated, even though it was not under construction when the Directive passed. Spain was granted a derogation. Greece, Portugal, and Ireland (due to adjustments for net 1980-87 additions) were allowed to increase emissions. And UK targets closely matched its existing programme (modified in 1986 by plans to install FGDs in three plants). New plants were subject to the BATNEEC criteria but not included under the Member States emissions targets. Existing plant targets were also adjusted according to Member State policy considerations. Considerably lower emissions reductions will result in the Community than the 60/40/40 levels envisaged by the Commission and the reductions will occur by the end of 2003 instead of 1995. Thus, one academic concluded that the proposal took on a form that had "little more than codified the current abatement plans of most Member States".³⁴ This indictment, while defensible, may not give enough credit to the influence which the imminent LCPD had over the creation of national policies in the interim period.

Still, far from harmonizing Community Member State policies, the LCPD allows Member States to adhere to different levels of environmental protection. Both a Commissioner and Commission staff person expressed the belief that UK truculence allowed the UK and Spain to "get away with too little" environmental protection. Countries like FRG, Denmark, and the Netherlands are expected to reach their reduction targets early. Considering that the UK's emissions and electricity production position paralleled the FRG's in 1983, the Commission believes that it was feasible for the UK to reduce by the same 60 per cent that Germany will have reduced by 1993.

³⁴ Jim Skea, *Energy Policy*, June 1988, p. 266.

6 A HIGH LEVEL OF PROTECTION?

While international pressures may have extracted additional environmental protection from unwilling Member States, overall the LCPD has been disappointing for those who support stringent environmental protection goals, most notably the Commission, the FRG, Denmark, and the Netherlands. They have described it as a victory of individual state's interests over EC supranational policy-making. The Commission's LCP proposal probably reached the Council prematurely. Legal and institutional reforms, coinciding with rapidly changing public opinion with regard to the environment, have made 1991 a more hospitable time for like-minded initiatives. Even so what would be the chances of the LCP proposal emerging out of the Council unscathed today?

The vehicle emissions Directive requiring catalytic converters on new cars³⁵ is a case in point. Legal changes brought by the SEA created a stronger mandate for environmental policy within the Community and a co-operation procedure which gives the Parliament more influence over EC environmental policy. Parliament has long been recognized as both wanting more power and being more environmentally proactive via the Council. In the case of vehicle emissions the Commission and Parliament teamed together using the co-operation procedure of Article 149 to produce a truly harmonizing, environmentally-sensitive product standard for Community cars. Since only a qualified majority was necessary to pass the Directive within Council, the stricter standard was adopted.

The vehicle emissions Directive had two advantages over the LCPD. First, unlike the LCPD, it does not require retrofits for *existing* equipment (i.e. cars). Second, it qualifies as a product standard necessary to Internal Market trade harmonization, thus only requiring a qualified majority in the Council, not unanimity as with the LCPD (see footnote 12).

While the vehicle emission Directive does achieve the "high level of protection" standard, it only did so by qualified majority within Council. Environmental protection legislation which cannot qualify as harmonization legislation must still be adopted unanimously by the Council. Thus, even one Member State can prevent a measure from passing. With the Commission proposing environmental policy which they hope is the "best solution for Europe"³⁶ and the Council modifying that policy to obtain the "best deal for themselves"³⁷, unanimous approval of a "high level of protection" for Europe's environment is unlikely. Even though environment is now on every Member State's priority list (with Spain as a possible exception), Commission initiatives

³⁵ O.J. No. L 226, 3.8.1989. Also see Haigh and Baldock, *Environmental Policy and 1992*, pp. 52-54.

³⁶ Quote by Lord Clinton Davis, Commissioner for the Environment between 1985 and 1989.

³⁷ *Ibid.*

will continue to go through politically motivated modifications, resulting in a less ambitious result.

*Today, the paramountcy of the Council is not only beyond doubt; it has sometimes seemed in danger of submerging the identity of the Community itself.*³⁸

³⁸ Stanley A. Budd and Alun Jones, *The European Community: A Guide to the Maze*, third edition, London 1989, p. 40.

APPENDIX A

EC Institutional Structure

Environment policy initiatives originate with the Commission of European Communities³⁹ which is staffed by DG XI, the EC civil service branch responsible for environment, consumer protection and nuclear safety. The Commission staff receive their mandate from the Commission and via the Commission from the other institutions within the Community. Each year the President of the Commission addresses the European Parliament specifying the Programme of the Commission for that year.

Every four to five years DG XI receives its general direction and objectives from the Community Action Programme for the Environment which is produced by the Commission and endorsed by the Council. The Commission staff at DG XI creates these action programmes which the Commission sends to the Council for approval. The programmes are not legally binding, but rather act as a statement of intent or policy framework⁴⁰ backed by provisional approval. The current Action Programme (Fourth, 1987-92) emphasizes the interdependence of economic growth and the environment reflecting the stronger environmental mandate derived from the SEA Treaty amendments.

³⁹ The official title of Commission of the European Communities refers to the several treaties (European Coal and Steel Community Treaty of 1951, European Atomic Energy Community of 1957 and European Economic Community of 1957 or Treaty of Rome) which in combination give the Commission its legal mandate. It has become the norm to refer to the Commission, which consists of seventeen nationally appointed Commissioners (two each from the UK, France, FRG, Italy, and Spain plus one from the remaining seven Member States) as "the Commission". (Sometimes the term "the Commission" includes reference to the Commissioners and their staffs at the Directorates.) Note that Commissioners are sworn not to take instructions from Member State governments during their tenure as Commissioners.

Decisions are taken by the Commissioners at their weekly Wednesday meetings. Prior to these meetings most of the sticking points on proposals are resolved by the Commissioners' Cabinet and DG staff. See Budd and Jones, *The European Community: A Guide to the Maze* for further details.

⁴⁰ Haigh, Nigel, *EEC Environmental Policy and Britain*, p. 11.

The Council of Environment Ministers⁴¹ and the European Council⁴² can encourage policy initiatives by drawing the Commission's attention to a specific environmental concern that they would like the Commission staff to study or address with a proposal. The European Parliament⁴³ in its questioning of the Commissioners can draw attention to environmental issues which they think the Commission should address. The Commissioner with the portfolio for environment, responsible for the Commission staff at DG XI, is most likely to be questioned by the Parliamentary Environment Committee. Member States encourage Community policy initiatives either by informing the Commission using the "environment information agreement"⁴⁴ of the need for harmonizing legislation and/or through written communication to the Council requesting Community action on an environmental problem. Third party pressure from international conferences and agreements in which the EC participates can influence the Commission to initiate policy. And finally, public interest groups can press the Commission to look at environmental concerns.

⁴¹ The Council of Environment Ministers consists of Member State Environment Ministers who negotiate and endorse Community policies with which their Member State government can and will abide. The Council of Environment Ministers is referred to here as simply the Council. But note that there is a distinction between this Council and the other Councils which are composed of Foreign Ministers, Trade Ministers, Agricultural Ministers, etc. The Council of Environment Ministers meets two or three times per year and is served by Committee of Permanent Representatives (COREPER) who staff working meetings with Commission staff in between the Councils.

⁴² The European Council, or Community "summit", a meeting of the Heads of State three times a year, was established by the Heads of State themselves in 1974 and in 1986 was given legal standing in the Treaty of Rome. It is essentially a forum of appeal where matters of Community importance are discussed and sometimes resolved by national government heads.

⁴³ Since 1979, the European Parliament's (or "the Parliament") 518 Members (MEPs) have been directly elected every five years. They come from political groups and are not representatives of Member States. They make no laws and are concerned with influencing the Commission and Council.

With the passage of the SEA, MEPs have been given increased power through the Co-operation Procedure to influence environment policy and have used it in the case of vehicle emissions.

⁴⁴ This agreement (OJ C9 15.3.73 and OJ C86 20.7.74) requires Member States to transmit relevant proposals for national legislation to the Commission who can then decide if the matter is appropriate for Community action.

BIBLIOGRAPHY

"A Single European Market in Energy", A Joint Report of the Energy and Environmental Programme, Royal Institute of International Affairs and Science Policy Research Unit, University of Sussex, Chatham House, London, 1989.

"Acid Rain: The Political Challenge", Proceedings of the Joint IEEP/NSCA Conference, London, 19.9.86.

Aniansson, Britt, et al, *Europe's Air - Europe's Environment*, Report of the Nordic Council of Ministers to the Nordic Council's International Conference on Transboundary Air Pollution, Stockholm, 1986, pp. 20-21.

Berkhout, Frans, Sonya Boehmer-Christiansen, and Jim Skea, "Deposits and Repositories: Electricity Wastes in the UK and West Germany", *Energy Policy*, April 1989, pp. 109-115.

Boehmer-Christiansen, Sonya, "The Politics of Dying Forests", *Interdisciplinary Science Reviews*, Vol. 13, No. 1, 1988, pp. 5-8.

Boehmer-Christiansen, Sonya, "Black Mist and the Acid Rain: Science as Fig Leaf of Policy", *The Quarterly*, Vol. 59, No. 2, April-June 1988, pp. 145-160.

Boehmer-Christiansen, Sonya, "The Assessment of Acid Rain: An Exploration of Anglo-German Contrasts", working paper for Conference of the International Association for Impact Assessment, Lausanne, June 1990.

Budd, Stanley A. and Alun Jones, *The European Community: A Guide to the Maze*, Kogan Page Ltd., London, 3rd edition, 1989.

Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit (BMU), *Umwelt*, Bonn, January 1990, p. 9.

Cheshire, John, "The Environmental Consequences of UK Policy", Conference of National Society for Clean Air, Llandudno, October 1988.

Clinton-Davis, Commissioner, "Communication from the Commission to the Council on data regarding SO₂ and NO_x emissions from large combustion plant installations", SEC (85) 925, Brussels, 20.6.85.

Commission of the European Communities, "Explanatory Memorandum on Commission Proposal on limitation of emissions of pollutants into the air from large combustion plants", COM (83) 704 final, 15.12.83

Commission of the European Communities, "Proposal for a Council Directive on the limitation of emissions of pollutants into the air from large combustion plants", COM (83) 704 final, Official Journal C49, 21.2.84, pp. 1-7.

Commission of the European Communities, "The European Community and the Environment", 3rd edition, Luxembourg, Office of Official Publication of the European Communities, 1987, p. 21.

Commission of the European Communities, "Communication from the Commission to the Council on Energy and the Environment", COM (89) 369 final, February 1990.

Decision on the Community becoming a party to the Convention on long-range transboundary air pollution, 81/462/EEC, Official Journal L171, 27.6.81, p. 11.

Derwent, R. G., *The Nitrogen Budget for the UK and North West Europe*, ETSU Report R37, fig. 36, 1985.

Directive on air quality limit values for SO₂ and suspended particles, 80/779/EEC, Official Journal L229, 30.8.80.

Directive on combatting of air pollution from industrial plants, 84/360/EEC, Official Journal L188, 16.7.84, p. 20.

Directive on emissions from small cars, 89/458/EEC, Official Journal L226, 3.8.89.

Directive on lead content of petrol, 78/611/EEC, Official Journal L197, 22.7.78.

Directive on limit values for lead in air, 82/884/EEC, Official Journal L378, 31.12.82.

Directive on limitation of emissions of certain pollutants into the air from large combustion plants, 88/609/EEC, Official Journal L336, 7.12.88.

Directive on measures to be taken against pollution of the air by gases from positive ignition engines of motor vehicles, 83/351/EEC, Official Journal L197, 20.7.83.

Directive on sulphur content of gas oil, 75/716/EEC, Official Journal L307, 27.11.75.

Dowlatabadi, Hadi and Winston Harrington, "Policies for the Mitigation of Acid Rain: A Critique of Evaluation Techniques", *Energy Policy*, April 1989, pp. 116-122.

European Community, Third Action Programme on the Environment, Official Journal C46, 17.2.83, p. 1.

European Community, "Environment Information Agreement", Official Journals C9, 15.3.73 and C86, 20.7.74.

European Environmental Bureau, "Comments on the draft Directive to limit air pollution from large combustion plants (COM (83) 704 final)", 1983 and 1984.

Haigh, Nigel, Conference on Acid Rain, London, May 4, 1984, p. 73-75.

Haigh, Nigel, *EEC Environmental Policy and Britain*, United Kingdom, Longman, 2nd Edition, 1989.

Haigh, Nigel, "New Tools for European Air Pollution Control", *International Environmental Affairs*, Vol. 1, No. 1, Winter 1989, pp. 26-37.

Haigh, Nigel, "The Environmental Policy of the European Community and 1992", *International Environment Reporter*, December 1989, p. 622.

Haigh, Nigel and David Baldock, *Environmental Policy and 1992*, London HMSO, 1989, pp. 52-55.

Hancher, Leigh, "Towards a free Market for Energy?", *Energy Policy*, April 1990, pp. 233-245.

Hancher, Leigh, "Energy and the Environment: Striking a Balance?", *Common Market Law Review*, Vol. 26, 1989, pp. 475-512.

The Independent, "Delaying Tactics Earn Britain Its 'Dirty' Tag", London, 8.5.90, p. 8.

International Energy Agency, *Energy Policies and Programmes of IEA Countries: 1983 Review*, OECD, Paris, 1984.

International Energy Agency, *Energy Policies and Programmes of IEA Countries: 1988 Review*, OECD, Paris, 1989.

Mapes, Glynn and Philip Revzin, "Water Fight: British Spat with EC over Pollution Shows What 1992 May Bring", *Wall Street Journal*, Vol. CCXIV, No. 116, 14.12.89, pp. A1, A16.

McGowan, Francis, "The Single Energy Market and Energy Policy: Conflicting Agendas?", *Energy Policy*, December 1989, pp. 547-553.

Nordhaus, William D., "Greenhouse Economics: Count Before You Leap", *The Economist*, 7.7.90, pp. 21-24.

Owens, S. and C. W. Hope, "Energy and Environment: The Challenge of Integrating European Policies", *Energy Policy*, April 1989, pp. 97-102.

Skea, Jim, "UK Policy on Acid Rain: European Pressures and Emission Prospects", *Energy Policy*, June 1988, pp. 252-269.

Strategies and Policies for the Abatement of Air Pollution, ECE/EB/AIR/rev.1/20-2-85.

Surrey, John, "Energy and the Environment: Conflicts Facing the European Community", lecture given at Imperial College, London, January 1990.

"1992: The Environmental Dimension", *Task Force Report on the Environment and the Internal Market*, September 1989, prepared by independent environmental experts for the EC Commission.

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