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Small Automobiles Causing Large Air Pollution Problems on a Global Basis: The European Economic Community Can Learn and Live from United States Legislation

No generation has a freehold on this earth. All we have is a life tenancy—with a full repairing lease.

-Margaret Thatcher¹

I. Introduction

Occurrences on three continents have been quite influential in increasing the world awareness for our environment. On March 23, 1989, the Exxon Valdez, freshly loaded with 1.2 million barrels of crude oil, left Alaska's south coast headed for California.² Twenty-five miles from the coast, the Valdez ran squarely into a reef, which gashed the hull and created the most disasterous oil spill in United States waters.³ The resulting environmental and economic impacts are huge.⁴

On a different continent, Brazil contains nearly one-third of all the world's tropical forest and a greater variety of plants than any other country. But September is the month that Amazonia burns; when farmers set ablaze the scrub off their land, the fires often spread into the Amazon. The destruction of the Amazon has a double impact on the carbon accumulating in the earth's atmosphere. For good reasons, therefore, the rest of the world has a le-

^{1.} Costing the Earth: A Survey, THE ECONOMIST, Sept. 2, 1989, at 38 [hereinafter Costing].

^{2.} Marshall, Valdez: The Predicted Oil Spill, Sci., Apr. 7, 1989, at 20.

^{3.} *Id*

^{4.} The disturbing numbers are: 2,500 to 6,000 square miles of ocean affected; 300 to 800 miles of stained shoreline; thousands of birds killed; 3,000 to 4,000 otters killed; and Exxon's estimated cleanup costs and legal claims are \$500 million. Disturbing Numbers, U.S. News & WORLD REP., May 15, 1989, at 14.

^{5.} The Month Amazonia Burns, THE ECONOMIST, Sept. 9, at 15 [hereinafter Amazonia]. The Amazon has more types of fish than all the rivers of Europe; the trees are home to more species of birds than in all the forests of North America. Id.

^{6.} Id. at 15.

^{7.} Id. Brazil's own climatologists believe that the burning Amazon accounts for up to 25% of the global carbon dioxide emissions. Many scientists think that atmospheric carbon dioxide is causing the earth to warm up to a disastrous degree. Id.

gitimate interest in what happens in Amazonia.

Moving to yet another continent and environmental disaster, the Chernobyl accident in the Soviet Union awoke environmental concern in countries where it was previously dormant, such as France and Japan.⁸ Politicians all over the world are responding to the shift in public opinion.⁹

In accord with this increased awareness for the world's environment, the United States and the European Economic Community have recently focused their attention on auto emissions and the environment. The extent to which motor vehicle exhausts contribute to air pollution is vehicle miles traveled (VMT, the number of vehicles times the number of miles each is operated). In the United States, the growth in automobile use and VMT has surpassed previous predictions. Emissions from motor vehicles contain numerous substances which contribute to air pollution. The Environmental Protection Agency (EPA)'s objective is to control hydrocarbons (HC), carbon monoxide (CO), oxides of nitrogen (NOx), and

^{8.} Costing, supra note 1, at 38. More importantly, people have begun to see the damage done by bad environmental policies. It took the drought in the summer of 1988 to make Americans worry about the greenhouse effect and wilting forests to make West Germans worry about acid rain. Id. The greenhouse effect is "a phenomenon in which gas molecules in the atmosphere trap heat radiating from the earth's surface." Note, Global Warming and International Environmental Law — A Preliminary Inquiry, 30 HARV. INT'L L.J. 375 (Spring 1989). This phenomenon's consequences are total global warming trends. Id.

^{9.} In Britain, 8,000 people wrote to the government about deforestation in the Amazon — far more than wrote about starving Ethiopians. *Costing, supra* note 1, at 38. Additionally, a survey done in fourteen countries for the United Nations indicated that there is a widespread belief, in poor and rich countries alike, that the environment has gotten worse. *Id*.

^{10.} D. GUSHEE, CLEAN AIR ACT ISSUES: MOTOR VEHICLE EMISSION STANDARDS AND ALTERNATIVE FUELS CRS-2 (Cong. Research Serv. Issue Brief — The Library of Congress Order Code IB86140) (Updated Sept. 26, 1989). Vehicle miles traveled is equal to the number of vehicles times the number of miles each is operated. *Id.* Since the number of vehicles and the VMT increase with the population and economic well-being, both can be expected to grow in the future. *Id.* Thus, air quality concerns from vehicles will be with us as long as vehicles use fossil fuels. *Id.*

^{11.} M. COURPAS, CLEAN AIR ACT ISSUES: OZONE NON-ATTAINMENT CRS-6 (Cong. Research Serv. Issue Brief — The Library of Congress Order Code IB86140) (Updated Sept. 26, 1989). In 1970, when the Clean Air Act was enacted, 108 million vehicles were registered and 900 billion miles driven annually. By 1980, these figures had risen to 177 million registered vehicles and 1.7 trillion miles driven. The Environmental Protection Agency (EPA) projects that by the year 2010, VMT will have increased by an additional 60% *Id.* at CRS-6.

^{12.} D. Gushee, supra note 10, at CRS-2. Hydrocarbons are a complex mix of unburned and partially burned fuel components. Id.

^{13.} Carbon monoxide is an invisible gas causing a number of ill effects in the human body. It displaces oxygen in the blood and keeps oxygen from reaching body tissues. By reducing oxygen to the brain, it can dull the mind and limit visual perception. It can also trigger angina pains among cardiac patients who have trouble getting oxygen to the heart. Washington Post, June 4, 1989, at A18, col. 2. Carbon monoxide is another product of incomplete fuel combustion. D. Gushee, supra note 10, at CRS-2.

^{14.} Oxides of nitrogen are a mixture of substances formed when the nitrogen and oxygen in the air going through the engine react with each other in the hot engine cylinders. D. Gushee, supra note 10, at CRS-2. Nitrogen dioxide works like ozone, constricting and inflaming the lungs, and possibly causing long-term damage. It also interferes with white blood cells in the lung lining, lowering resistance to infection. It is also a component of acid rain. Washington Post, June 4, 1989, at A18, col. 4.

particulates.15

The controlling of auto emissions is of great importance, primarily due to the extent to which such emissions contribute to air pollution. For example, the major source of volatile organic compounds, the most important ozone¹⁸ pre-cursor, are motor vehicles which contribute forty percent of such compounds.¹⁷ Thus, in terms of volatile organic compounds, motor vehicle emissions exceed harmful industrial emissions. Additionally, two-third of the carbon monoxide emissions come from motor vehicles.¹⁸

In general, Europe has lagged far behind the United States in auto emission rules.¹⁹ There are currently no mandatory Community-wide standards for emissions from small and medium-size cars which account for sixty percent and twenty percent, respectively, of the approximately ten million cars sold in Western Europe per year.²⁰ Community-wide standards for large cars went into effect on October 1, 1989, but some countries, such as Britain, were resisting them.²¹

Recently, however, both Europe and the United States have decided to battle auto pollution. In the United States, President Bush has proposed bills to significantly amend the Clean Air Act²² for the first time since 1977. This Comment will first examine current United States policy, standards, and regulation of the emissions dispelled by moving vehicles. Second, an introduction to the European Economic Community (EEC) standard²³ will be set forth, followed by a brief discussion on legislative harmonization within the EEC. An analysis of the existing policy for the regulation of vehicle emissions within the Community will also be presented. Finally, since the proposed integration of the EEC is a key step on the way to creation of a "United States of Europe," the United States and EEC policies will be comparatively examined.

^{15.} D. GUSHEE, supra note 10, at CRS-2. Particulates are soot-like particles also resulting from incomplete fuel combustion. Id.

^{16.} Release from Office of the Press Secretary, the White House (June 12, 1989) (President Bush's Clean Air Plan). Ozone is formed when volatile organic compounds are mixed with nitrogen oxides (NOx) in the presence of sunlight. *Id.* at 5.

^{17.} Id. at 6.

^{18.} Id. at 10. For the harmful effects of carbon monoxide, see supra note 11 and accompanying text.

^{19.} N.Y. Times, Oct. 2, 1989, at D1, col. 3.

^{20.} Id. at D1, col. 4.

^{21.} Id. At the time of publication, it is not known with absolute certainty whether these Community-wide standards went into effect.

^{22. 42} U.S.C. §§ 7521-7574 (1982).

^{23.} The European Economic Community is comprised of twelve countries: Ireland, Britain, Denmark, the Netherlands, Belgium, West Germany, Luxembourg, France, Italy, Greece, Spain, and Portugal. Washington Post, Sept. 16, 1989, at A16, col. 5.

^{24.} Washington Post, Sept. 16, 1989, at A15, col. 3.

II. The United States Regulation: The Clean Air Act

A. Historical Background of The Clean Air Act

1. Evolution of The Clean Air Act.—First passed in 1963, the Clean Air Act (CAA) is the Congressional response to deteriorating air quality as a result of America's industrial growth and increasing dependence on the automobile.25 The CAA of 1963 provided a barebones approach to cleaning up the United States' air.26 The 1965 amendments²⁷ to the CAA established nationwide emission standards for motor vehicle engines, and mandated pollution control devices on motor vehicles manufactured after the effective date of implementing regulations. One year later, Congressional amendments authorized funds for state air pollution control programs.²⁸ Since air pollution originated as a state and a local issue, the early version of the CAA in the 1960's limited the Federal role primarily to research and development, and assistance to the states.29 As knowledge about air pollution increased and air quality appeared to worsen, the Federal role was eventually strengthened.³⁰ The CAA of 1970³¹ formed the broad outline of the current CAA.³² While the CAA is one of the most complex pieces of legislation ever enacted, it established a simple precedent: the federal government has the right and duty to set and enforce national standards defining clean air.33 Before then, fighting pollution was largely left to state and local governments.34

Since 1970, the CAA has been amended on a wide-scale basis on only two occasions. As a response to the energy crisis of 1973-74, Congress enacted the Energy Supply and Environmental Coordina-

^{25.} J. BLODGETT & M. COURPAS, AIR QUALITY CRS-2 (Cong. Research Serv. Issue Brief — The Library of Congress Order Code IB87124) (Updated Sept. 1, 1989) [hereinafter J. BLODGETT & M. COURPAS].

^{26.} THE AMERICAN ENTERPRISE INSTITUTE FOR PUBLIC POLICY RESEARCH, 97TH CONG., 1ST SESS., THE CLEAN AIR ACT PROPOSALS FOR REVISIONS 2 (1981) [hereinafter AE1].

^{27.} See id. at 2.

^{28.} See id.

^{29.} J. BLODGETT & M. COURPAS, supra note 25, at CRS-2.

^{30.} *Id*

^{31.} Pub. L. No. 91-604, 84 Stat. 1676 (1970) (current version at 42 U.S.C. §§ 7401-7642 (1982)).

^{32.} *Id.* (citing Pub. L. No. 91-604, 84 Stat. 1676 (1970)) (current version at 42 U.S.C. §§ 7401-7642 (1982)).

^{33.} N.Y. Times, May 14, 1989, at 5, col. 2.

^{34.} Id. The CAA of 1970 addressed air pollution in a two-pronged approach: (1) for existing sources of pollution, the CAA mandates the Federal establishment of National Ambient Air Quality Standards (NAAQS), and then required the states to devise plans (State Implementation Plans, or SIPs) for achieving these standards; and (2) for new sources of pollution, the CAA provided national performance-based standards; and (3) for new sources of pollution, the CAA provided national performance-based standards; it directed the EPA to set these standards for major new stationary sources. J. BLODGETT & M. COURPAS, supra note 25, at CRS-2.

tion Act of 1974.35 The CAA was again amended in 1977.36 The 1977 amendments to the Act restricted state discretion in a variety of ways.³⁷ The 1977 amendments extended the deadlines for achieving National Ambient Air Quality Standards (NAAOS) to 1982; carbon monoxide and ozone NAAOS deadlines were extended to 1987 under certain conditions; the deadline for achieving emission reductions was extended to 1981.38 Many changes to the CAA have been proposed since the 1977 amendments, but only two have been enacted: a provision to help steel mills modernize was passed in 1981³⁹ and an eight-month extension of the attainment deadline from December 31, 1987 to August 31, 1988 was devised. 40

2. Codified Purposes and Goals of the Clean Air Act. 41—While Title I of the CAA deals chiefly with "stationary sources" of air pollution such as factories and power plants, Title II focuses on a "mobile source," such as automobiles. 42 As a whole, the Act has three major goals. In the interest of brevity, the first of these goals is the development of new knowledge, 43 the second is economic efficiency, 44 and the third is procedural simplicity and consistency. 45

^{35.} J. BLODGETT & M. COURPAS, supra note 25, at CRS-2 (citing Pub. L. No. 93-319, 88 Stat. 246 (1974)). Among other things, this amendment extended the deadline for achieving auto emission reductions to 1977. Id. at CRS-3.

^{36.} Pub. L. No. 95-95, 91 Stat. 685 (1977).

^{37.} AEI, supra note 26, at 3.

^{38.} J. BLODGETT & M. COURPAS, supra note 25, at CRS-3. These amendments also (1) codified the CAA's implicit demand for the prevention of significant deterioration (PSD) of air where quality is already better than required by NAAQS; (2) provided for offsetting emissions from new sources in non-attainment areas where NAAQS are not being achieved; (3) changed the performance-based new source standards to technology-based requirements; (4) codified existing case law prohibiting pollutant dispension as a control technique for meeting NAAQS; and (5) authorized research and controls on pollutants depleting stratospheric ozone. Id.

^{39.} Pub. L. No. 97-23, 95 Stat. 139 (1981).

^{40.} Pub. L. No. 100-202, 101 Stat. 1329-1 (1988).

^{41.} For a table on the chronology of the CAA, see Appendix 1. As to the purposes of the current Act,

[[]t]he mandates of the Clean Air Act indicate in part why EPA is so heavily involved in research. The codified purposes of the Act are, inter alia, "to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution," and "to provide technical and financial assistance to state and local governments in connection with the development and execution of their air pollution prevention and control programs."

Note, Acid Rain and The Clean Air Act: Agency Inaction and the Need for Legislated Reform, 6 Va. J. Nat': RESOURCES L. 213, 217 (1986) (citing CAA § 101(b)(2)-(3), 42 U.S.C. § 7401(b)(2)-(3) (1982)).

^{42.} Pedersen, Why the Clean Air Act Works Badly, 129 U. PA. L. REV. 1059, 1061 (1981) (citing 42 U.S.C. §§ 7521-7574 (Supp. III 1979)).

^{43.} Id. at 1062.

^{44.} Id. at 1067. In support of this assertion,

[[]e]conomics have long pointed out the inefficiency of regulations that require all pollution sources to reduce their emissions equally, and have argued that the same reductions could be achieved at less cost by mechanisms that rely on individual self-interest to shift the control burden to those who can bear it most cheaply.

Id. at 1067 n.21.

3. Reaping Benefits from the Act.—It is widely agreed that without controls imposed on industry and automobiles by the CAA, many areas of the United States would now be under a thick and noxious layer of pollution.⁴⁶ Bernard S. Cohen, of the American Trial Lawyers Association, said that the 1970 Act provided "the legislative tools which will form the jurisdictional foundation and the procedural building blocks with which to wage war on pollution."⁴⁷ Adopted unanimously in the Senate and passed through the House with only one dissenting vote, the CAA provided many tools for attacking air pollution. Most importantly, the CAA set maximum levels for six pollutants: lead, solid particles, sulfur dioxide, carbon monoxide, nitrogen oxide, and ozone.⁴⁸

Indeed, the National Commission on Air Quality (NCAQ) 1981 report concluded that the CAA has been responsible for a significant reduction in the level of air pollution, particularly concentrations of carbon monoxide, sulfur dioxide, and suspended particulates. 49 As will be discussed later in this Comment, the CAA has not been drastically amended in over a decade. President Bush, in attempting to fulfill his promise to clean up America, has offered new proposals to drastically amend the Act; specifically, part of President Bush's aim is to control motor vehicle emissions.

B. Background of the Control Over Motor Vehicle Emission

"The problem of motor vehicle pollution is growing and is destined to continue growing unless steps are taken to bring it under effective control." The need for legislation and a nationwide attack on the motor vehicle pollution problem has become undeniable. The Secretary of Health, Education, and Welfare, in a 1964 report to Congress, was convinced that motor vehicle exhaust control standards on a national scale would not only be beneficial, but necessary to the entire country. The secretary of the entire country.

^{45.} Id. at 1069.

^{46.} N.Y. Times, May 14, 1989, at 5, col. 2.

^{47.} Id.

^{48.} Id

^{49.} Futrel, The Clean Air Act: Benefits and Burdens, THE BRIEF, Feb., 1982, at 31. The commission also concluded there was no serious conflict between the achievement of clean air goals and the pursuit of economic and energy development. Id.

^{50.} H. REP. No. 899, 89th Cong., 1st Sess. 2, reprinted in 1965 U.S. CODE CONG. & ADMIN. NEWS 3608, 3611.

^{51.} Id. at 3610-11. At the time of this proposal more than eighty-five million motor vehicles are now in use in the United States, and their number increases every year. Air sampling studies conducted over the last several years leave no doubt that automotive smog is occurring with increasing frequency and severity in urban areas throughout the United States. Id.

^{52.} Id. at 3612. "Public concern about this problem is clearly increasing, as indicated, for example, by the steps taken or proposed in many states to deal with motor vehicle pollution." Id.

In 1963, the first Federal Authority requiring reduced emissions in motor vehicles was enacted.⁵³ In response to the enactment, the Public Health Service (the EPA's predecessor) promulgated some modest emission requirements for light duty vehicles effective for the 1968 model year and for heavy duty engines (trucks over 6000 lbs.) effective for the 1970 model year.⁵⁴

Congress intensified regulatory programs aimed at trucks (without deadlines or reduction percentages) and other mobile sources (motorcycles, vans, and motor homes) in 1970 and hardened its position on the automobile.⁵⁶ Congress last amended the Clean Air Act in 1977; by that time automobile emission control requirements had reduced hydrocarbons and carbon monoxide over eighty percent and nitrogen oxides over forty percent.⁵⁶ Further reductions were certain; Congress could see that as new, cleaner cars entered the fleet, the relative contribution of trucks to air pollution was becoming greater.⁵⁷ Consequently, the EPA accelerated its regulatory efforts aimed at trucks after the 1977 Amendments.⁵⁸

There has been a tightening of standards over the years as the EPA, engine and truck manufacturers, environmentalists, and others have struggled with such factors as technological capabilities and economics. From the standards may be most beneficial from an environmental position, but impossible or seemingly infeasible from a technological standpoint. In the latter case, where proposed costs seem to outweigh the environmental benefits, monetary policy could actually take precedence over air quality.

Certainly, in the short-term analysis, economic implications will outweigh environmental benefits that would not surface for a period of years to come. To the average individual, clean air would not be as readily noticeable in the short-run as lost profits or paying for a

^{53.} D. GUSHEE, *supra* note 10, at CRS-2. (Pub. L. No. 88-206, 77 Stat. 392 (1963) (current version at 42 U.S.C. §§ 7401-7642 (1982)).

^{54.} Id

^{55.} Id. (citing Pub. L. No. 91-604, 81 Stat. 486 (1970)).

^{56.} Id. at CRS-3.

^{57.} Id.

^{58.} Id. As evidence of the accelerated regulatory efforts aimed at trucks, [w]hen Congress amended the Clean Air Act that year (Clean Air Act Amendments of 1977, P.L. 95-95), it mandated that EPA set standards for trucks that would, for model year 1982 and beyond, achieve a 90% reduction in emissions from baseline for [hydrocarbons] and [carbon monoxide] and that would, for model year 1983 and beyond, reduce [nitrogen oxide] emissions by 75%.

^{59.} Id. "Cars have been subjected to increasingly stringent emission limitations since 1968 (earlier in California); today, compared to uncontrolled auto emissions, emissions of hydrocarbons have been reduced over 90%, and [nitrogen oxide] over 75%." M. COURPAS, CLEAN AIR ACT ISSUES: OZONE NONATTAINMENT CRS-6 (Cong. Research Serv. Issue Brief—The Library of Congress Order Code 1B89064) (Updated Sept. 7, 1989). "Trucks are just now becoming subjected to increasingly stringent emission limitations designed to reach the same percentage reductions as autos by 1995." Id.

more expensive automobile. In the long-term analysis, however, air quality is vital for the generations to come, and clean air in the near future is far more valuable than saving dollars today.

C. 42 U.S.C. §§ 7521-7574: The CAA Provisions on the Regulation of Emission Standards

Title II of the CAA,60 which regulates the emission standards for moving sources, is of great length and complexity; the Title, in its fifty-three sections, goes into considerable detail regarding many aspects of regulating automobile emissions.⁶¹ Obviously, each and every section cannot and will not be examined in this Comment. Consequently, only the broader and more general sections that can be comparatively analyzed with EEC policy will be considered.

Basically, the Clean Air Act has created an Administrator to encourage cooperative activities by the states and local governments for the prevention and control of air pollution. 62 The Administrator also assures that all of the available resources within the federal government are being utilized for the purposes of the federal air pollution program.63 The Administrator must establish a national research and development program directed at preventing and controlling air pollution.64 The CAA provides that the Administrator should give special emphasis to the short- and long-term effects of air pollutants on public health and welfare in carrying out the research pursuant to the CAA.65

The Administrator utilizes the powers delegated by the Clean Air Act as a whole for issuing regulations on automobile emissions. More specifically,

It he Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which may reasonably be anticipated to endanger public health or welfare.66

Since the enactment of the 1977 Amendments, the regulations applicable to the emissions of carbon monoxide and hydrocarbons from light-duty vehicles and engines manufactured after the 1980 model year shall be subject to standards requiring a reduction of at

^{60. 42} U.S.C. §§ 7521-7574 (1982).

^{61.} Id.

^{62.} *Id*.

^{63.} Id. § 7402(b).
64. Id. § 7403(a). The Administrator is given considerable responsibilities. See id. § 7403(a)(1)-(5).

^{65.} Id. § 7403(f)(1).

^{66.} Id. § 7521(a)(1).

least ninety percent from that of the pollutants allowable under the section applicable to light-duty vehicles and engines manufactured in model year 1970.67 With regard to the carbon monoxide emissions from light-duty vehicles and engines manufactured, the ninety percent reduction mandate also applies, with the only difference being the requirement that these changes be made to the model year 1981.68

Concerning the regulations applicable to emissions of oxides of nitrogen from light-duty vehicles⁶⁹ and engines manufactured during and after the 1981 model year, the standard is that such emissions may not exceed 1.0 gram per vehicle mile. 70 It is up to the Administrator to report each year to the Congress regarding the development of systems necessary to implement the emission standards promulgated pursuant to the Clean Air Act. 71 Additionally, the Administrator may waive application of the regulations enacted for any state which has adopted standards which are at least as protective of public health and welfare as the applicable federal standards.⁷²

D. President Bush's Proposal for Change: A Clean Air Bill

The Clean Air Plan.—On June 12, 1989, President Bush fulfilled a major campaign commitment by proposing a comprehensive program to provide clean air for all Americans.73 The plan proposed would be the first sweeping revision of the Clean Air Act since 1977.74 Essentially, President Bush's plan is designed to curb three of the nation's major threats to the environment; acid rain, urban air

72. 42 U.S.C. § 7543(b)(1) (1982). However,

[n]o such waiver shall be granted if the Administrator finds that —

(A) the determination of the state is arbitrary and capricious,

(B) such State does not need such State standards to meet compelling and extraordinary conditions, or

(C) such State standards and accompanying enforcement procedures are not consistent with section 202(a) [42 U.S.C. § 7521(a)] of this part.

^{67.} Id. § 7521(b)(1)(A).

^{68.} Id.
69. "The term 'light duty vehicles and engines' means new light duty motor vehicles and new light duty motor vehicle engines, as determined under regulations of the Administrator. Id. § 7521(b)(3)(C).

^{70.} Id. § 7521(b)(1)(B).
71. Id. § 7521(4). As part of this Administrator's duty, [s]uch reports shall include information regarding the continuing effects of such air pollutants subject to standards under this section on the public health and welfare, the extent and progress of efforts being made to develop the necessary systems, the costs associated with development and application of such systems, and following such hearings as he may deem advisable, any recommendations for additional congressional action necessary to achieve the purposes of this Act.

Id.

^{73.} Release from Office of the Press Secretary, The White House 1 (June 12, 1989) (President Bush's Clean Air Plan).

^{74.} Id.

pollution, and toxic air emissions.⁷⁵ Since the passage of the CAA of 1970, some pollutants — such as carbon monoxide — have been reduced.⁷⁶ President Bush, believing progress has not come quickly enough, has proposed his plan in a desire to accelerate the pace of pollution reduction and clean up the air by the end of this century.⁷⁷

President Bush's proposal has wide-scale ramifications for the entire Clean Air Act. In relation to this Comment, the relevant portions of the plan will: (1) add a two million ton cut in nitrogen oxide (NOx) emissions (an acid-rain causing emission), and (2) bring all cities which currently do not meet the health standards for ozone and carbon monoxide into attainment by the year 2000.78 The proposed plan will provide both environmental protection and economic growth, two areas of congressional concern that normally conflict with each other.79

An additional Federal measure under Bush's proposal regarding automobile emissions is to tighten hydrocarbon emission tailpipe standards for all automobiles by approximately forty percent.80 The current standard of .41 grams per mile would thus be lowered to .25 grams per mile, the level soon to be required on all California vehicles. 81 Additionally, for the first time light-duty trucks will have to meet the tailpipe standard now required of automobiles (.41 gpm).82 Bush's most innovative and far-reaching proposal is the Long-Term Clean Fuels Program.83 This administrative program proposes to replace a portion of the automobile fleet in certain cities with new vehicles that operate on clean-burning fuels.84 The economic impact of reducing tailpipe emissions by forty percent has an estimated cost of \$3 billion to \$4 billion a year, while the clean-fuel endeavor is estimated to cost \$300 per car.85

These costs must justify the health and environmental benefits for the proposed amendments to pass through the House of Representatives and the Senate. There is the argument, however, that a price should not be put on the air needed to live. Stricter standards will be passed, but a compromise will have to be struck between environmentalists and those legislators who will be ardently protecting the industries in their communities. Any type of legislation passed

^{75.} Id.

^{76.} Id.

^{77.} Id.

^{78.} *Id*.

^{79.} *Id.* at 2. *See*, *e.g.*, text accompanying note 56. 80. *Id.* at 7.

^{81.} Id.

^{82.} Id. at 8.

^{83.} Id.

^{84.} Id. Clean burning fuels that could be used as alternative fuels are clean burning methanol, natural gas, and ethanol. Id.

^{85.} Church, Smell That Fresh Air!, TIME, June 26, 1989, at 17.

which addresses a further tightening of emission standards or speeding up compliance with current CAA levels can be seen as positive.

The Proposal Provisions.—One proposed amendment is to strike section 212 of the Clean Air Act⁸⁶ entirely and replace it with Clean Fuel Requirements.⁸⁷ This amended section provides, in part, that "not later than 12 months after enactment of this section, the Administrator shall promulgate regulations establishing performance standards for the clean-fuel vehicle program required under this subsection."88 These vehicles would run on fuels cleaner than gasoline such as methanol.89 Approximately 500,000 such cars would be on the road by 1995, 750,000 introduced in 1996, and 1,000,000 per vear from 1997 through 2004.90

Sections 202(b)(1)(A) and (B) of the CAA⁹¹ would also be amended by President Bush's proposals.92 This amendment essentially provides that the emissions of hydrocarbons from light-duty vehicles and engines will be cut dramatically, and that for all 1995 year models, emissions may not exceed 0.75 grams per vehicle mile.93 Section 202(b)(1)(B), pertaining to emissions of oxides of nitrogen, provides for gradual reduction of allowable emissions, and provides for 1995 and later model years a final standard of 0.7 grams for all light-duty automobiles.94

Bush's proposal would also amend Section 202 of the Act⁹⁵ by adding a new subsection for carbon monoxide emissions at cold temperatures. 96 This amendment provides that on average, emissions of carbon monoxide from a manufacturer's light-duty vehicle may not exceed 10.0 grams per mile when operated at twenty degrees Fahrenheit.97

3. House Panel Votes Strict New Limits on Car Pollution.—On October 2, 1989, a House subcommittee voted unanimously to tighten automobile tailpipe emission controls and, in ef-

^{86. 42} U.S.C. § 7546 (1982).

^{87.} H.R. 3030, S. 1490, 101st Cong., 1st Sess. § 201 (1989).

^{88.} Id. § 201(b).

^{89.} Church, supra note 85, at 17.
90. Id. However, a House subcommittee weakened the Bush proposal by instead requiring auto companies to mass-produce cars that run on clean fuels. Philadelphia Inquirer, Oct. 12, 1989, at 9-A, col. 1. "The vote gutted the most dramatic part of Bush's proposals to fight smog, acid rain and other air pollution." *Id.* Representative Henry Waxman (D., Calif.) declared that the fight for an alternative fuels plan is by no means over. Id. at 9-A, col. 5.

^{91. 42} U.S.C. § 7521(b)(1)(A)-(B) (1982). 92. H.R. 3030, S. 1490, 101st Cong., 1st Sess. § 202 (1989). 93. *Id*.

^{94.} Id.

^{95. 42} U.S.C. § 7521 (1982).

^{96.} H.R. 3030, S. 1490, 101st Cong., 1st Sess. § 204 (1989).

^{97.} Id.

fect, set national pollution standards as stringent as California's.98 An emission control program modeled after California's standards will be established between 1994 and 1996.99 The measure adopted by the subcommittee is stronger than the bill proposed by the White House:100 essentially, the measure would require new cars to carry equipment that sharply reduces three major pollutants: carbon monoxide, hydrocarbons, and nitrogen oxide. 101 Additionally, pollution control equipment would have to be built to last 100,000 miles. which is double the current requirement. 102 The measure would begin to take effect with 1994 models and would be fully effective in the 1996 model year.103

The measure adopted by the subcommittee will undoubtedly be the position of the House of Representatives; the White House is not expected to seek changes in the bill.104 Legislation that would provide better tools to enable cities not currently meeting the health standards would be more in order at this point. President Bush has proposed to bring such cities into attainment levels by the year 2000.106 These cities have failed to meet the health standards issued by the EPA, and it is now proposed to give these cities eleven more years. When, and if, these cities comply with the current health standards, they will be behind the new levels likely to be passed. Thus, concentration should be put on providing, in the CAA, such tools as are necessary to enable "trouble" cities to comply.

The European Economic Community: The Environmental Policy to Come

The European Economic Community (EEC)

After a long history of fratricidal wars, Europe has made a clear and deliberate choice in favor of peace, understanding and permanent dialogue, thanks to the European Community. Europe is now committed to a difficult but patient search for common solutions for a henceforth common future. 106

The EEC.—"The European Community is an institutional framework for the construction of a united Europe."107 The Commu-

^{98.} N.Y. Times, Oct. 3, 1989, at A1, col. 6.

^{99.} Id. California has the most stringent standards in the nation. Id.

^{100.} Id.

^{101.} Id. at A20, col. 4.

^{102.} *Id*. 103. *Id*.

^{104.} Id.

^{105.} Id. at A2, col. 6.

^{106.} See supra note 78 and accompanying text.

THE E.C. OFFICE OF PRESS AND PUBLIC AFFAIRS, THE EUROPEAN COMMUNITY 1 (S.

nity was created shortly after World War II, when a devastated Western Europe was seeking ways to rebuild its economy and prevent future wars. 108 The Community was comprised of six Western European countries at the time the Treaty of Rome was signed in 1957. 109 Community membership is open to any European democracy, and the membership has doubled — from six to twelve — since 1957.110 The immediate objectives of the Treaty of Rome were the establishment of a customs union, the dismantling of quotas and other trade barriers between the member states, and the free movement of goods, persons, and capital.¹¹¹ The treaty also specified that member states would apply common policies in such fields as agriculture, transport, antitrust law, and external trade. 112 The Community has developed common policies on a wide range of issues including environmental protection. 113

Removing Technical Barriers.—The 2. Harmonization: founding treaties of the EEC created three institutions having the authority to bind Europe. 114 The Commission proposes legislation, implements Community policy, and enforces the E.C. treaties;115 the Council of Ministers acts on Commission proposals and is the final decision-making body;¹¹⁶ the European Parliament, composed of 518 elected officials, mainly debates issues and scrutinizes proposed legislation.117

Community legislation comes in several forms. A regulation is Community law, whereas a decision is binding only on member states or individuals to whom it is addressed. 118 A directive sets objectives, but allows member states to translate them into national legislation. 119 The harmonization of legislation has legal basis as a

Perry ed. 1987) (quoting Jacques Delors, President of the E.C. Commission, on the thirtieth anniversary of the European Community's founding Treaty of Rome) [hereinafter E.C. Office OF PRESS].

^{108.} Id. at 3.

^{109.} Id.

^{110.} Id. at 4. These six countries were: France, Belgium, the Federal Republic of Germany, Italy, Luxembourg and the Netherlands, Id.

^{111.} Id. at 4. "Today's Community unites 322 million citizens in an area covering most of Western Europe, and is the world's largest trading body." Id.

^{112.} Id.

^{113.} Id. Common policies in virtually all areas of economic and social life were also requested in the preamble and general clauses of the Treaty of Rome. Id.

^{114.} Id. For a more detailed discussion on the EEC objectives, programs, and progress, see generally Commission of the European Communities, Fourth Progress Report of THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT CONCERNING THE IM-PLEMENTATION OF THE COMMISSION'S WHITE PAPER ON THE COMPLETION OF THE INTERNAL MARKET 2-14 (June 20, 1989) (plan for creating a unified internal market) [hereinafter WHITE PAPER].

^{115.} E.C. Office of the Press, supra note 107, at 8.

^{116.} *Id*.

^{117.} Id. 118. Id.

^{119.} Id.

result of article 100 of the Treaty of Rome,¹²⁰ which provides, in part: "The Council shall, acting unanimously on a proposal from the Commission, issue Directives for the approximation of such provisions laid down by law, regulation or administrative action in Member States as directly affect the establishment or functioning of the common market." The effective incorporation of the relevant Community texts into national legislation is vital to placing such textual principles into practice. 122

3. The History Behind a Need for an Environmental Policy in the EEC.—The need for an environmental policy for the EEC was considered quite recently. "Since the late 1960's all European countries have had environmental protection policies. It soon became clear, however, that action at a national level would not be enough, so in October 1972, the Community Heads of State or Government proclaimed the need to establish a Community environmental policy." 128

The White Papers also declare that "environmental protection lies at the heart of the harmonization measures." Additionally, the Community must make its contribution towards combatting the major sources of pollution in the world. Consequently, the level of harmonization must not be set so low as to lead to public health or environmental objections to the rules governing the market. The Commission has, for this reason, taken great care in its decisions regarding the control of matters such as vehicle emissions, so that such regulations do not conflict with environmental policy objectives.

An EEC environmental policy has developed under legal constraints because the Community was designed primarily as an economic organization; environmental protection was not an original ob-

^{120.} Id.

^{121.} Lomas, Environmental Protection, Economic Conflict and the European Community, 33 McGILL L.J. 506, 510 (1988) (citing Treaty of Rome, Mar. 25, 1987, 298 U.N.T.S. 3) [hereinafter Lomas].

^{122.} Treaty of Rome, Mar. 25, 1987, 298 U.N.T.S. 3. Article 100 is the general approximation clause of the Treaty, and the purpose of such is to ensure the Treaty's ultimate goals of free movement of goods and capital under conditions of undistorted competition. Non-tariff obstacles to a Unified Market, Common Mkt. Rep. (CCH) ¶ 3302.07 (1981). Therefore, "[t]he Community institutions not only can, but must, act to remove any disparities between the Member States' provisions where they 'directly affect the establishment or functioning of the Common Market.'" Id.

^{123.} WHITE PAPER, supra note 114, at 15. For a detailed discussion of technical harmonization and standards, see id. at 15-24.

^{124.} COMMISSION OF THE EUROPEAN COMMUNITIES THE EUROPEAN COMMUNITY AND ENVIRONMENTAL PROTECTION 3 (European File Mar. 1987) [hereinafter Commission].

^{125.} WHITE PAPER, supra note 114, at 9.

^{126.} *Id*.

^{127.} Id.

jective of the treaties.¹²⁸ The articles of the Treaty of Rome did not provide a clear-cut legal basis for the development of environmental policy as a new common policy within the bounds of the Treaty.¹²⁸ Consequently, environmental policy goals could only be pursued as incidental to harmonization measures motivated by trade or competition considerations.¹³⁰

The inadequate legal foundations of the Community's environmental policy have been rectified by the signing of the Single European Act in 1987¹³¹ which amended the Treaty of Rome.¹³² The Single European Act has been heralded as the "coming of age" of the Community's environmental policy, mostly because of article 100A and its effect on the law-making process within the Community.¹³³ Article 100A provides, in part, that:

- 1.... The Council shall, acting by a qualified majority on a proposal from the Commission... adopt the measures for the approximation of the provisions laid down by law, regulation or administrative action in member states which have as their object the establishment and functioning of the internal market.
- 3. The Commission, in its proposals envisaged in paragraph 1 concerning health, safety, *environmental protection* and consumer protection, will take as a base a high level of protection [emphasis added].¹³⁴

The formulation of an environmental policy, then, has become a matter of considerable importance in the EEC. There are several reasons why the EEC has taken action. First, the Treaty of Rome gives the Community the objective of improving the living and working conditions of its citizens, which includes improving their environment.¹³⁶ Second, if member states have differing national economic policies, the resulting disparities could affect the functioning of the common market.¹³⁶ The third reason for an environmental policy in the EEC is simply because pollution recognizes no frontiers.¹³⁷

The second reason interfaces directly with the topic of this

^{128.} Id.

^{129.} Rehbinder & Stewart, European Environmental Law, 33 Am. J. COMP. L. 371, 400 (1985).

^{130.} *Id*.

^{131.} Id.

^{132.} Single European Act, Feb. 17, 1986, 29 O.J. Eur. Comm. (No. L 169) 1 (1987).

^{133.} Lomas, supra note 121, at 512.

^{134.} Id. at 512 n.21.

^{135.} Single European Act, Feb. 17, 1986, 29 O.J. Eur. Comm. (No. L 169) 8 (1987). "Although the role of environmental policy receives express recognition in Article 100A, the goal of economic integration remains at the heart of this article." Lomas, supra note 121, at 513.

^{136.} COMMISSION, supra note 124, at 3.

^{137.} Id.

Comment. The EEC recognized in the early 1970's that if some member states were to impose more stringent measures than others to control automobile emissions, a barrier to free trade would be erected, and thus obstruct the creation of a common market. 138 Therefore, the Community issued a directive with respect to petroleumfueled vehicles that set limits for carbon monoxide and hydrocarbon emissions. 139 In 1977, a directive imposed limit values for nitrogen oxides emissions, 140 and three other directives, the last in 1983, ordered the further reduction of the emission limits specified.¹⁴¹

The thrust of the EEC program can be evaluated by analyzing the four action programs launched. The first two programs, implemented in 1973 and 1977, looked for immediate responses to the serious problems posed by pollution, primarily in the industrial sector. 142 The third program, launched in 1983, represented an overall preventive strategy for safeguarding the environment and natural resources. 143 The fourth program goes further and makes environmental protection an essential element of all economic and social policies. 144 This program has directives limiting air pollution by vehicles; the Community's Council of Ministers has also favored the introduction of lead-free gasoline after 1989.148

B. The Directives: Controlling Automobile Emissions European-Style

This section will set forth some of the directives concerning the projected control of automobile emissions and fuels that will go into effect after the Community integrates in 1992. As in the case of the United States Clean Air Act discussed earlier, these directives are only a part of a comprehensive environmental policy. The directives, in effect, will be an attempt to parallel the provisions in the Clean Air Act.

The Commission is the administrative arm of the Community and, as such, has the power to make proposals for new policies and legislation. 146 Within the Commission of the European Community an office of Directorate-General has been established for environ-

^{138.} Commission, *supra* note 124, at 5. 139. Lomas, *supra* note 121, at 524.

^{140.} Id.

^{141.} Id. (citing O.J. Eur. Comm. (No. L 32) 1 (1983)).

^{142.} Id. (citing O.J. Eur. Comm. (No. L 159) 61 (1974), O.J. Eur. Comm. (No. L 223) 48 (1978), O.J. EUR. COMM. (No. L 197) 1 (1983)).

^{143.} Id.

^{144.} *Id*.

^{145.} Id. "The Community environmental policy is concentrated around two principal themes: on the one hand, the fight against pollution and nuisances; on the other, improved management of land, of the environment and of natural resources." Id. at 7.

^{146.} Id. at 8.

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mental concerns and has been responsible for numerous legislative proposals, of which over a hundred have become Community law.¹⁴⁷

In 1985, the Council agreed to split the European car fleet into three categories — small, medium, and large — based on engine size. 148 This categorization made it possible for the Council to impose different limit values and application dates for each category. 149 Since small cars (up to 1.4 liters) account for sixty percent of the approximately ten million cars sold in Western Europe per year, 150 small car values for the EEC should be analyzed.

Prior to developments in June 1989, the mass of carbon monoxide for small cars had to be less than forty-five grams per test.¹⁵¹ The combined mass of hydrocarbons and nitrogen oxides to be met was no greater than fifteen grams per test, while the mass of nitrogen oxides maximum limit was six grams per test.¹⁵² This directive was to become effective for new models on October 1, 1990, while on October 1, 1991, all new vehicles are to be effectively bound.¹⁵³ These emission limits represent the maximum stringencies, and as such, member states may allow higher emissions but may not require lower ones.¹⁵⁴ Since the mere presentation of the allowable grams per test has most likely created a quandary at this point, a comparison to the United States equivalent for all cars may be found in Appendix 2.

C. Recent Developments

In 1988, the European Commission proposed measures¹⁵⁵ that would effectively cut in half the level of pollutants from small cars.¹⁵⁶ The new standards would take effect October 1, 1992 for new models, and October 1, 1993, for all new automobiles.¹⁵⁷ The first-stage standards for small cars (less than 1.4 liters) were formally adopted by the Council in 1987, with a commitment to 1992 and 1993 for implementation of the second stage.¹⁵⁸ The proposed levels would be identified with those already in effect for medium-

^{147.} Lomas, supra note 121, at 509 n.7.

^{148.} Id. at 509.

^{149.} Id. at 526.

^{150.} *Id*.

^{151.} N.Y. Times, Oct. 2, 1989, at D1, col. 4.

^{152.} O.J. Eur. Comm. (No. L 36) 4 (1988). The procedure comprising the test is laid down in O.J. Eur. Comm. (No. L 76) 1 (1970)).

^{153.} O.J. EUR. COMM. (No. L 36) 4 (1988).

^{154.} Lomas, supra note 121, at 527.

^{155.} Id.

^{156.} New Developments: Small Car Emission Standards, [July 1985-Oct. 1988 Transfer Binder] Common Mkt. Rep. (CCH) 10,964 (1988) (citing COM (87) 706 final).

^{157.} Id.

^{158.} Id.

sized cars.159

The reason for the introduction of strict second-stage standards for small cars becomes apparent after viewing statistics. Small cars will account for nearly sixty percent of the Community fleet by the early 1990's. 160 The current fleet of small cars produces about forty-five percent of dangerous nitrogen oxides emitted by private cars in the Community, but as the new vehicle exhaust legislation heralds stricter standards for medium and large cars, the pollutants of the small cars will comprise a larger proportion of the whole. 161 The second-stage standards will cut the small car contribution to both nitrogen oxides and hydrocarbon emissions by an estimated fifty-eight percent and reduce carbon monoxides by forty-eight percent. 162

D. Europe Takes on Auto Pollution¹⁶³

In June 1989, environmental ministers from each of the Community's twelve member nations agreed to impose emission standards for new small cars in 1992, similar to those that have been applicable in the United States since 1985. 164 The new initiative passed by the Council lowered the permissive mass of carbon monoxide for small cars to nineteen grams per test and the permissive mass of hydrocarbons and nitrogen oxides were reduced to five grams per test for all new models beginning on October 1, 1992. 165 The permissive mass of carbon monoxide for all new automobiles is twenty-two grams per test, and the permissive mass of hydrocarbons and nitrogen oxides is 5.8 grams per test. 166 The initiative for new automobiles will go into effect on December 31, 1992.167 Perhaps these standards were passed in light of the fact that Europe has lagged well behind the United States in auto emissions, 168 or even more likely, because of the damage to forests and other areas of the environment in Europe by auto emissions. 169

Presently, there are no mandatory Community-wide standards for emissions from small and medium-sized cars.¹⁷⁰ Even though the

^{159.} Id.

^{160.} Id. See Appendix 2.

^{161.} *Id*.

^{162.} Id.

^{163.} Id. Thus, the ultimate result of the second-stage standards would be to meet the Council's commitment to achieve Community environmental standards equal to those in effect in the United States. Id.

^{164.} N.Y. Times, Oct. 2, 1989, at D1, col. 3.

^{165.} *Id*.

^{166.} Normes D'Emmission pour les roitures actuellement en vigueur, Memo. No. 76/89, 1 (Bruxelles, le 20 decembre 1989).

^{167.} Id.

^{168.} *Id*.

^{169.} N.Y. Times, Oct. 2, 1989, at D1, col. 3.

^{170.} Id. at D1, col. 5.

Community-wide standards are not effective until 1992, further steps to cut auto pollution are already being debated.¹⁷¹ There has been some discussion about lowering speed limits, spending more resources on rail systems and buses, and increasing restrictions on car use.¹⁷²

IV. Comparing the United States and the European Economic Community's Implementation of Motor Vehicle Emissions

Upon first glance, a striking comparison seems apparent regarding environment policies and controls over auto emissions in the United States and in the EEC. For example, the populations of the two areas are similar: the EEC in 1985 had 322.1 million people, compared to 239.3 million living in the United States. The EEC has, however, nearly 100 million more people than does the United States. The EEC has thirty-two cars per 100 persons, while the United States has fifty-three. The would think, then, that not only would car emissions be less of an environmental problem in the EEC, but that it also would be easier to control. Nevertheless, the EEC appears to have fallen behind the United States for a variety of reasons.

The United States, in implementing laws for preservation of its environment, has enacted and updated one of its most complex and far-reaching pieces of legislation, the Clean Air Act. As previously described, the Act has a type of "enforcer" — the Administrator — who reports to Congress with all of his findings regarding pollution. Congress then decides whether or not change is needed. By way of the Clean Air Act, the United States Government has effectively wrestled a power from the states that was once theirs. The laws now issued by the EPA are binding upon the states. The Clean Air Act has a specific title dealing with the regulation of mobile sources, and specifically with automobiles of all sizes.

The United States continues to press ahead in a desire to clean its air; President Bush made it a major campaign policy during the

^{171.} Id. at D1, col. 4; see supra note 154 and accompanying text. Standards for large cars went into effect on Oct. 1, 1989, but some countries, such as Britain, are resisting them. N.Y. Times, Oct. 2, 1989, at D1, col. 4.

^{172.} N.Y. Times, Oct. 2, 1989, at D5, col. 4.

^{173.} Id. at D5, col. 5. The Germans are quite passionate about having no speed limits on their autobahns, and therefore oppose Community-wide lowering of speed limits. Id.

^{174.} E.C. Office of Press, supra note 107, at 16. (Source: Eurostat, OECD).

^{175.} Id.

^{176.} See supra note 33 and accompanying text.

^{177.} See supra notes 62-66 and accompanying text.

^{178.} See supra note 34 and accompanying text.

^{179.} Id.

^{180.} See supra note 60 and accompanying text.

last Presidential Election. 181 Recently, strong amendments have been proposed to amend the Act. 182 and specific amendments were proposed to further restrict automobile emissions. 183 Environmental issues are a primary concern in the United States, and the recent Valdez disaster in Alaska¹⁸⁴ has aroused any dormant public concerns towards achieving a clean environment in America.

New cars have been meeting statutory emission standards in the United States since 1981. 185 Carbon monoxide standards, however, were not met by the CAA extended deadline of August 31, 1988 in 100 or more metropolitan areas and, in most cases, cannot be met in the near future. 186 In response, President Bush has proposed a clean fuels program that would place additional restrictions on tailpipe emissions. 187 These proposals are not without criticism, however, as the clean fuels program has been thwarted. 188 There is also criticism of the proposals on mobile source emissions because the standards may be diluted through averaging, and acid rain oxides of nitrogen provisions do not counter growth in emissions. 189

The United States has enjoyed benefits from its Clean Air Act, 190 specifically the massive reductions in harmful pollutants resulting from car emissions. 191 But the recent proposals by President Bush convey the feeling that these reductions are not enough; the health and the environment in major urban areas resulting from such emissions are still a problem.

The environmental policy in the United States is more extensive than the environmental policy in the EEC. 192 This is primarily due to the fact that the United States Government enjoys important resources and powers which the EEC lacks. 193 These include the federal government's ownership of one-third of the nation's land, an even larger share of its important natural resources, and its taxing and spending authority. 194 The EEC authorities have not inherited comparable powers.195

The development and implementation of an environmental policy in the EEC has also been constrained by the fact that the Com-

^{181.} Id.

^{182.} See supra note 73 and accompanying text.

^{183.} See generally notes 73-77; see also notes 74-75.

^{184.} See supra notes 80-97 and accompanying text.

^{185.} See supra notes 1-4 and accompanying text.

^{186.} D. GUSHEE, *supra* note 10, at CRS-1. 187. *Id*.

^{188.} See supra notes 83-84 and accompanying text; see also supra notes 87-90.

^{189.} See supra note 90 and accompanying text.

^{190.} J. BLODGETT & M. COURPAS, supra note 25, at CRS-7.

^{191.} See supra notes 46-49 and accompanying text.

^{192.} See supra note 56 and accompanying text.

^{193.} Rehbinder & Stewart, supra note 129, at 432.
194. Id.
195. Id.

munity originated as an economic institution. 196 Other constraints are the vast differences in language and culture among the member states and the politically insecure definition of the Community's legislative powers. 197

The EEC has only recently begun to take action to curb air pollution from automobiles. 1988 In June 1989, the EEC agreed to place into effect, starting in 1992 and 1993, emission standards for new small cars that would compare to United States standards that have been applicable since 1983.199 In general, Europe has lagged well behind the United States in auto emissions rules. 200 The standards for small cars that are to go in effect in 1990 are considerably more lenient than the United States standards²⁰¹ now in place; the United States is presently proposing to further reduce these standards.²⁰² The aim of the EEC has been to bring European standards in line with those enforced in the United States.²⁰³ These standards will not be met, however, by the limits agreed upon in the EEC because the calculations upon which these standards were set assumed that European car and mileage traveled will remain constant.²⁰⁴ As a result, nitrogen oxide levels will only be cut by twenty percent from the existing level, rather than fifty percent as claimed by the Commission.205

Additionally, the EEC has had trouble compelling its member nations to implement the auto exhaust controls. Italy, a country where the automobile industry is strong, has put none of the Community directives into practice to date.²⁰⁶ This type of non-compliance has resulted because differing emission standards are considered by some to be the creation of a trade barrier in regard to 1992.²⁰⁷ If a single member state desires to harden its position on automobile pollution, it must first persuade the rest of the Community before stiffer requirements can be effective Community-wide.²⁰⁸

^{196.} Id.

^{197.} Id. See also supra note 129 and accompanying text.

^{198.} Rehbinder & Stewart, supra note 129, at 432.

^{199.} N.Y. Times, Oct. 2, 1989, at D1, col. 3.

^{200.} Id. See also note 165 and accompanying text.

^{201.} N.Y. Times, Oct. 2, 1989, at D1, col. 3. See also note 19 and note 169.

^{202.} See Appendix 2.

^{203.} See generally notes 80-85 and accompanying text.

^{204.} Lomas, supra note 121, at 528. See also note 165 and accompanying text.

^{205.} Lomas, supra note 121, at 528; "Vehicle miles in the United Kingdom are expected to increase by up to 50 percent by the year 2000, while the Dutch car fleet, for example, is expected to grow by between 30 and 50 per cent by 2010." Id. at 528 n.80.

^{206.} Id. "This prediction was made by an official from the Dutch Environment Ministry speaking at a conference in London on 'The Clean Car: A Challenge for Europe,' which was organized by the European Bureau and was held on 12 March 1987." Id. at 528 n.81.

^{207.} Washington Post, Sept. 16, 1989, at A16, col. 6.

^{208.} N.Y. Times, Oct. 2, 1989, at D5, col. 3; see also notes 126-27 supra note and accompanying text.

Otherwise, the sole member state implementing the stricter standards and absorbing the consequential economical costs resulting from such a decision (i.e., technological costs, implementation of the new technology) will lose in a significant competitive factor. Persuading all member states toward auto emissions is especially difficult, since the past attitudes of European governments on the topic have significantly differed. 209 In Britain, France, Italy, Portugal and Greece, small cars with pollution control are a rarity.²¹⁰ On the other hand, Denmark has resisted directives on the grounds that they are too weak,211 and accordingly notified the Commission that it intends to adopt stricter standards for auto emissions because of the necessity to protect its environment.212

Because of the enormous differences in language, culture, and attitudes within the Community, there may be a greater need for harmonization in Europe. 213 Also, the United States may be able to tolerate and achieve greater diversity in environmental standards and controls than the EEC because its environmental policy is not linked to the process of political and economic integration.²¹⁴ It should be noted, however, that the White Papers state that "the Commission has announced that it plans to make all legislation in this sector binding on all the member states and no longer optional as it is today.215 The Commission also realizes that it must broaden its work to include heavy goods vehicles which are not covered by directives to date;216 proposals regarding these vehicles will be submitted in 1990 217

V. Conclusion

The United States and the European Economic Community have both taken positive steps in their efforts to curb pollution caused by harmful automobile emissions emanated from small-sized vehicles. The desire of the EEC to adopt a system of standards paralleling that of the United States is both positive and negative. The United States' system has been beneficial to date, but much still needs to be done to amend the standards. The EEC can learn from the United States system, and it is currently planning to adopt re-

^{209.} N.Y. Times, Oct. 2, 1989, at D5, col. 4.

^{210.} Id. at D4, col. 2.

^{211.} Id.

^{212.} *Id.*; see also Lomas, supra note 121, at 530.213. N.Y. Times, Oct. 2, 1989, at D4, col. 2.

^{214.} Lomas, supra note 121, at 433 n. 149 (quoting Slot, Handelsbarrieres, Nationalrecht en Europeesrecht, 28 Sociaal Economische Wetgeving 233, 262 (1980)).

^{215.} Id. at 433 n.148 (quoting Roth, Freier Warenverkehr and Staatliche REGELUNGSGEWALT IN EINEM GEMEINSAMEN MARKET 337, 339 (1977)).

^{216.} WHITE PAPER, supra note 114, at 16.

^{217.} Id.

strictions in the near future that the United States appears to be abandoning. Since air quality is generally worse in Europe than in the United States, perhaps in the future the EEC should shed its desire to emulate the United States. It should instead adopt a system that would better suit not only its member nations and their economic concerns, but would also be more amenable to their immediate environmental needs.

The Community should be commended for its recognition of the importance of car emission standards and for the continuing measures that it has taken to emulate the United States. The EEC should adopt standards that are at least similar in restriction as those now in place in the United States, and should abandon their current lenient standards. The Community should, in adopting their own standards, remain cognizant of the fact that although the United States' program has been successful, there are still over 100 metropolitan areas that have not met the mandated levels. Additionally, the EEC should be aware that the Clean Air Act has failed to provide all the adequate tools for reaching some of the goals it has set.²¹⁸ Thus, the Community should be realistic in setting the actual standards to be met in Europe.

The EEC should be certain to be thorough and innovative in delineating the means by which such standards can be met, including strict policing of the regulations and making any directives binding on the member states. The Community may want to start with standards that all member states can reasonably achieve without suffering any severe economic or competitive disadvantages. The Community can then build on these standards as will be economically positive and environmentally stringent. Any reduction in pollution certainly must be looked at positively, but the search for environmentally and economically compatible policies must continue.

Christopher E. Mohney

APPENDIX 1

TABLE 1. Chronology of the Clean Air Act

Year	Authority	Action		
1955	AIR POLLUTION CONTROL — RESEARCH AND TECHNICAL ASSISTANCE (P.L. 84-159)	Authorizes the Public Health Service to conduct research and provide technical assistance.		
1959	REAUTHORIZATION	Program extended.		
1960	AUTOMOTIVE AIR POLLUTION (P.L. 88-206)	Requires Surgeon General to study automobile air pollution.		
1963	CLEAN AIR ACT	Authorizes grants to States; provides for Federal enforcement in interstate pollution cases; research on auto emissions, sulfur from fuels, air-quality criteria; Federal facilities must have emission permits from HEW.		
1965	MOTOR VEHICLE AIR POLLUTION CONTROL ACT (P.L. 89-272)	Authorizes Federal regulation of emissions from new autos; expands research; provides for international reciprocity.		
1966	CLEAN AIR ACT AMENDMENT (P.L. 89-675)	Authorizes expanded program; provides grants for State program maintenance.		
1967	AIR QUALITY ACT (P.L. 90-148)	Establishes system of air quality criteria and standards; provides for enforcement; requires identification of air quality control regions; provides process for emergency abatement; requires numerous studies.		
1970	CLEAN AIR ACT AMENDMENTS (P.L. 91-604)	Centralizes air pollution control in EPA; provides for Federal primary and secondary national ambient air quality standards and their attainment by a date certain; for State Implementation Plans and their approval by EPA; for Federal enforcement; sets mandatory auto emission standards; establishes New Source Performance Standards; provides control of toxic air pollutants.		

TABLE 1 (continued). Chronology of the Clean Air Act

Year	Authority	Action		
1974	ENERGY SUPPLY AND ENVIRONMENTAL COORDINATION ACT (P.L. 93-319)	Provided temporary suspension for stationary sources for coal conversion orders; extended auto emission deadline.		
1977	CLEAN AIR ACT AMENDMENTS (P.L. 95-95)	Extended deadline for attainment of National Ambient Air Quality Standards to 1982 (some extensions to 1987 possible); allowed certain offsets in nonattainment areas; requires continuous technological controls to meet New Source Performance Standards for 2 years; provided for Prevention of Significant Deterioration; required various studies; established a National Commission on Air Quality to report on program.		
1981	STEEL INDUSTRY COMPLIANCE EXTENSION ACT (P.L. 97-23)	Authorizes EPA to extend steel facility compliance deadlines if funds saved are used for modernization.		
1987	Amendment to Continuing Resol National Ambient Air Quality S 31, 1987, to Aug. 31, 1988	lution (P.L. 100-202) Eight-month tandards Extension, from Dec.		

Source: J. BLODGETT and M. COURPAS, AIR QUALITY (Cong. Research Serv. Issue Brief—The Library of Congress Order Code IB87124)(Updated Sept. 1, 1989).

APPENDIX 2

TABLE 2 Emission Limits ¹ for Petrol Engined Vehicles (Grams/Test ²)							
	Small Up to 1.4 litres	Medium 1.4 - 2 litres	Large Over 2.0 litres	U.S. equivalent for all cars (estimated ³)			
CO HC + NOx NOx HC	45 15 6	30 8	25 6.5 3.5	16 4.6 2.4 2.2			
Date of Application							
New models	1.10.90	1.10.91	1.10.88				
All new vehicles	1.10.91	1.10.93	1.10.89				

Notes

- 1. The emission limits represent maximum stringencies. Member States may allow higher emissions but must not require lower ones.
- 2. This refers to the mass in the test procedure laid down by Directive 70/220.
- 3. These figures are themselves higher than the limits now being met by new cars on the United States market.

Source: Lomas, Environmental Protection, Economic Conflict and the European Community, 33 McGill L.J. 506, 527 (1988).