THE FEDERAL AIR POLLUTION PROGRAM

I. Introduction

An awareness of the awesome threat—both to our health and to our economy—posed by a polluted atmosphere has long been widespread. Only recently, however, has concern been translated into conduct on the part of those whose initiative is essential if we are to meet one of the most technical challenges of our industrial society.

The first step in the creation of a federal program to combat air pollution was taken by Congress with the enactment of the Air Pollution Control Act of 1955.¹ This Act authorized the Secretary of Health, Education, and Welfare to engage in the program of research and technical assistance to state and local governments.² The role of the federal government was limited to leadership, cooperation, research, and technical assistance, and this legislation reflected the belief of Congress that the primary responsibility to prevent and control air pollution should rest with the state and local governments.³ While

^{1.} Act of July 14, 1955, ch. 360, 69 Stat. 322. The legislative history of the federal air pollution law is rather involved; because it is often important to refer to the original enactment, rather than to subsequent amendments, a simplified form of citation is used herein. Act of July 14, 1955, ch. 360, 69 Stat. 322, as amended by Pub. L. No. 86-493 (1960) and Pub. L. No. 87-761 (1962), is hereinafter cited as Air Pollution Control Act of 1955. The Clean Air Act of 1963, Pub. L. No. 88-206, 77 Stat. 392, as originally enacted, is hereinafter cited as Clean Air Act, 42 U.S.C. § 1857 (1964). The Clean Air Act was amended by Act of Oct. 20, 1965, Pub. L. No. 89-272, 79 Stat. 992 and again by Act of Oct. 15, 1966, Pub. L. No. 89-675, 80 Stat. 954; this Act as thus amended is hereinafter cited as Clean Air Act, 42 U.S.C. § 1857 (Supp. 1967). The present federal law is embodied in the Air Quality Act of 1967, Pub. L. No. 90-148, 81 Stat. 485; it is hereinafter cited as Air Quality Act of 1967.

^{2.} Id. § 1. STAFF OF THE SENATE COMM. ON PUBLIC WORKS, 88TH CONG., 1ST SESS., A STUDY OF POLLUTION—AIR at 23 (Comm. Print 1963). The Secretary was authorized

⁽¹⁾ To prepare or recommend research programs for devising methods of controlling air pollution; (2) to encourage cooperative activities by State and local governments; (3) to collect and disseminate information relating to air pollution; (4) to conduct research to devise and develop methods of prevention and abatement and to support such work conducted by other governmental and private agencies; (5) to conduct research, surveys, and investigations concerning any specific problem of air pollution, upon request of any State or local governmental air pollution control agency; and (6) to make grants to, and enter into contracts with, other governmental and private agencies and individuals for surveys, studies, research, training, and demonstration projects.

Id.

^{3.} Air Pollution Control Act of 1955, § 1. In reporting the bill, the House Committee on Interstate and Foreign Commerce emphasized that "[t]he bill does not propose any exercise of police power by the Federal Government and no provision in it invades the sovereignty of States, counties, or cities." H.R. REP. No. 968, 84th Cong., 1st Sess 4 (1955).

the federal role has gradually expanded, the spirit of the 1955 Act remains presently in effect.4

Probably the greatest contribution of the federal program, in the eight years following the 1955 Act was the accumulation of a fund of scientific knowledge. A deeper understanding was achieved of the nature and extent of air pollution, its impact on health and welfare, and the techniques necessary for controlling many of its sources.⁵

But while much was being learned about air pollution, little was actually being done about it,⁶ and in 1963, most state and local governments had still not created meaningful facilities to deal with community air pollution problems. Only about one-half of the major urban areas were served by an air pollution control agency, most of which were underfunded and understaffed.⁷

Against this background, President Kennedy in February 1963, recommended legislation authorizing the Public Health Service of the Department of Health, Education, and Welfare:

- (a) to engage in a more intensive research program... [on] the causes, effects, and control of air pollution;
- (b) to provide financial stimulation to States and local air pollution control agencies...;
- (c) to conduct studies on air pollution problems of interstate or nationwide significance; and
 - (d) to take action to abate interstate air pollution....8

For the most part, these recommendations were incorporated into the Clean Air Act of 1963.

The 1963 Act thoroughly revised the existing federal air pollution laws. In addition to strengthening the authority of the Department of Health, Education, and Welfare with respect to its activities in research and training, two major new programs were authorized by the Act—a program of federal grants to state, regional, and local air pollution control agencies, and a program of limited federal assistance and participation in actions directed toward the abatement of particular air pollution problems. 11

^{4.} Clean Air Act, 42 U.S.C. § 1857(a)(3) (1964).

^{5.} See U.S. Dep't of Health, Education and Welfare, The Federal Air Pollution Program 10 (1967).

^{6.} Id.

^{7.} H.R. REP. No. 508, 88th Cong., 1st Sess. 7 (1963).

^{8.} Id. at 3-4.

^{9.} Id. at 4.

^{10.} Clean Air Act, 42 U.S.C. § 1857c (1964).

^{11.} Id. § 1857d.

While air pollution was viewed as a technical challenge in 1955, with the passage of the 1963 legislation, the emphasis shifted toward the social challenge. Thus, federal assistance to states and municipalities was not confined to technical considerations, but was expanded to assist control agencies in their efforts to hurdle political and economic obstacles which lay in the path of more efficient air pollution control. Furthermore, the 1963 Act shifted the emphasis from research to the application of the technological improvements.

In 1965, in response to the belief that national control of motor vehicle pollution was technically feasible, the Clean Air Act was amended to enable the Secretary of Health, Education, and Welfare to establish standards of control over this crucial source of air pollution.¹³

This shift in emphasis and the addition of new federal programs in the Clean Air Act as amended has resulted in a concerted nation-wide attack on air pollution under the leadership of the federal commitment. But while there was some progress under the 1963 Act, the efforts to actually abate pollution were considered inadequate. Thus, in a message to Congress on January 30, 1967, President Johnson urged the adoption of legislation to strengthen the Clean Air Act in order to improve and enhance the quality of air necessary to protect the health and welfare of our citizens.¹⁴

Congress adopted many of the President's recommendations in enacting the Air Quality Act of 1967. This Act retains and expands many sections of the Clean Air Act, but more importantly, provides for a comprehensive program for the control of air pollution programs on a regional basis in accordance with state-established air quality standards and enforcement plans subject to the approval of the Secretary of Health, Education, and Welfare. Although the major responsibility for prevention and control of air pollution remains with State and local governments, the Secretary is empowered to establish standards and enforcement plans if a state fails to take reasonable action, and, furthermore, is authorized to insure compliance with approved air quality standards. 16

The Clean Air Act of 1963, as amended in 1965, 1966, and by the

^{12.} Megonnell, Developing Abatement Policies under the Glean Air Act, 16 J. AIR POLLUTION CONTROL Ass'n 254, 256 (1966).

^{13.} Clean Air Act, 42 U.S.C. § 1857e (Supp. 1967).

^{14. 113} Cong. Rec. 1039-41 (daily ed. Jan. 30, 1967).

^{15.} Air Quality Act of 1967, § 105.

^{16.} Id. § 108.

Air Quality Act of 1967, constitutes the present federal air pollution law. The Act in its present form is divided into three titles: Title I— Air Pollution Prevention and Control; Title II-National Emission Standards Act; and Title III—General. In the first section, Congress spelled out the basic policy underlying the Act: "the prevention and control of air pollution at its source is the primary responsibility of States and local governments."17 The second section authorizes the Secretary of Health, Education, and Welfare to encourage cooperative activities by the states and local governments, uniform state and local laws, and interstate compacts for the prevention and control of air pollution.¹⁸ In addition, the Secretary is directed to "cooperate with and encourage cooperative activities by all Federal . . . agencies having functions relating to the prevention and control of air pollution" so as to insure the appropriate utilization of federal resources.¹⁹ In order to encourage interstate compacts, the Act gives Congressional consent for all such compacts not conflicting with federal law and makes the compacts unenforceable unless approved by Congress.²⁰ This paper will analyze the federal air pollution law in its three phases of activities-research, grants, and abatement.

II. THE FEDERAL RESEARCH PROGRAM

In 1955, when the federal government began the effort toward air pollution control, its primary activity was research.²¹ At this time, there was little scientific knowledge about the various kinds of pollutants, their nature, and their effects on health and property, or their control. The research program initiated in 1955 concentrated on finding answers to these problems and on the development of control devices.²² These research efforts were supplemented in 1960, when Congress directed the Surgeon General to study the problem of motor vehicle exhausts and their effect on human health.²³

Although the research activities under the 1955 law had greatly expanded the knowledge concerning air pollution, there was urgent

^{17.} Id. § 101(a)(3).

^{18.} Id. § 102(a).

^{19.} Id. § 102(b).

^{20.} Id. § 102(c). There are three interstate compacts presently before Congress awaiting approval. 5 CCH CLEAN AIR NEWS 21 (1968).

^{21.} Air Pollution Control Act of 1955.

^{22.} Id. § 1.

^{23.} STAFF REPORT, supra note 2, at 23.

need for more precise information about the problem, and the Clean Air Act of 1963 expanded the research program substantially.²⁴ The importance of the research program is reflected in the percentage of the air pollution program's funds which is devoted solely to the support of research activities. In the 1966 fiscal year, for example, approximately \$14,000,000—about half the total budget—was used for research.²⁵ In 1967, the research program was broadened even further by the Air Quality Control Act's addition of a new section providing for special emphasis in research and development of air pollution control devices relating to fuels and vehicles.²⁶

For the most part, the federal research effort is "concentrated in two broad areas—studies of the harmful effects of air pollution on health and property, and the development of improved ways of measuring and controlling air pollution." The Clean Air Act directs the Secretary of Health, Education, and Welfare to establish a national research and development program for the prevention and control of air pollution. As part of the program, the Act specifically directs the Secretary to

- (1) conduct, and promote the coordination and acceleration of, research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects, extent, prevention, and control of air pollution; and
- (2) encourage, cooperate with, and render technical services and provide financial assistance to air pollution control agencies and other appropriate public or private agencies, institutions, and organizations, and individuals in the conduct of such activities; and
- (3) conduct investigations and research and make surveys concerning any specific problem of air pollution in cooperation with any air pollution control agency with a view to recommending a solution of such problem, if he is requested to do so by such agency or if, in his judgment, such problem may affect any community or communities in a state other than that in which the source of the matter causing or contributing to the pollution is located.²⁸

In contrast to the general directives of the first two sections set out above which leave the Secretary wide discretion in the selection of research targets, section (3) is quite specific in requiring the Secretary to conduct investigations concerning any specific air pollution problem,

^{24.} Clean Air Act, 42 U.S.C. § 1857(b) (1964).

^{25.} U.S. DEP'T OF HEALTH, EDUCATION AND WELFARE, supra note 5, at 16.

^{26.} Air Quality Act of 1967, § 104.

^{27.} STAFF REPORT, supra note 2, at 16.

^{28.} Clean Air Act, 42 U.S.C. § 1857b(a)(1)-(3) (1964).

either upon request or on his own initiative if the problem is characterized as interstate.

An additional section was added by the Air Quality Act of 1967. It requires the Secretary to "give special emphasis to research and development into new and improved methods, having industry-wide application, for the prevention and control of air pollution resulting from the combustion of fuels." This new section is concerned primarily with the development of air pollution control devices. It contemplates the construction and operation of demonstration plants and experimental control equipment. In addition to its own projects, the Department of Health, Education, and Welfare is authorized to make grants or enter into contracts for the conduct of such experimental projects. 30

Under this new section, the Secretary shall (1) conduct research to develop low-cost techniques for control of combustion byproducts and evaporation emissions of fuels, and for removal of pollutants from fuels; (2) provide for federal grants to, and contracts with, public or private agencies to partially defray the cost of developing improved pollution control devices; (3) test results of air pollution research in order to develop new or improved processes and designs; (4) participate in the construction and operation of demonstration plants which have promise of controlling pollution; and (5) study methods for the recovery and use of commercially valuable byproducts resulting from the removal of pollutants.³¹ This section further provides that the Secretary may seek to develop devices for measuring quantity and quality of air pollution emissions, and, to this end, may use government laboratories, establish new test sites and facilities, acquire property, and participate in the promising projects of others.³²

In order to carry out the provisions directed by the Clean Air Act, the Secretary is authorized to collect and make available all information pertaining to such research; cooperate with and make grants to other agencies, institutions, and organizations conducting such research and

^{29.} Air Quality Act of 1967, § 104. This new section expands the provisions deleted from section 103 of the 1963 Act, dealing with research relating to control of emissions from gasoline and diesel-powered vehicles, and emissions of oxides of sulphur from sulphur-containing fuels.

^{30.} Air Quality Act of 1967, § 104(a)(2). This section authorizes grants for demonstration projects which are not available to private industry but also authorizes contracts which are available to private organizations.

^{31.} Id. § 104(a)(1)-(5).

^{32.} Air Quality Act of 1967, § 104(b)(1)-(5).

related activities; provide training for, and make training grants to, personnel of air pollution control agencies, establish and maintain research fellowship; and develop effective and practical methods and prototype devices for the prevention or control of air pollution.³³

This authority provided to the Secretary by the Clean Air Act permits a research effort on a broad front. It includes work at the Cincinnati-based Robert A. Taft Sanitary Engineering Center, at universities, and by industries under government contracts. In addition Department-supported research is conducted by other federal agencies including the Bureau of Mines of the Department of the Interior, the Environmental Science Services Administration and the National Bureau of Standards of the Department of Commerce, the Tennessee Valley Authority, and the Agriculture Research Service of the Department of Agriculture.³⁴ Finally, because of the complexities of the research program under the Clean Air Act, the Air Quality Act of 1967 added a provision requiring the Secretary to

establish technical advisory committees composed of recognized experts in various aspects of air pollution to assist in the examination and evaluation of research progress and proposals and to avoid duplication of research.³⁵

III. THE FEDERAL GRANT PROGRAM

When it passed the Clean Air Act, Congress assumed that state and local governments would accept a major share of the responsibility for preventing and controlling air pollution. Yet, in 1963, at the time of enactment of the Clean Air Act, many state and local governments lacked air pollution control agencies.³⁶ Very few existing agencies were adequately financed.³⁷

^{33.} Clean Air Act, 42 U.S.C. § 1857b (b) (1964).

^{34.} U.S. DEP'T OF HEALTH, EDUCATION AND WELFARE, supra note 5, at 16-17.

^{35.} Air Quality Act of 1967, § 103(a)(4).

^{36.} H.R. REP. No. 508, 88th Cong., 1st Sess. (1963), in U.S. Code Cong. & Ad. News 1265-66 (1963).

^{37.} In 1961, only seventeen state air pollution programs spent more than \$5000 per year. Of approximately two million dollars spent by these states, California expended 57%. At the local level there were only 85 agencies with annual budgets of \$5000 or more. These local agencies made total expenditures of eight million dollars, 55% of which was from California sources. STAFF OF THE SENATE COMM. ON PUBLIC WORKS, 88TH CONG., 1ST SESS., A STUDY OF POLLUTION—AIR at 32, 34 (Comm. Print 1963). The 1963 figures reflected little change. State and local agencies spent 12.7 million dollars, and California again accounted for the bulk (48%) of this figure. Yaffee, Air Pollution Control Grants—The First Year of Experience, 15 J. AIR POLLUTION CONTROL ASS'N 403, 408 (Sept. 1965).

It was apparent to Congress that a more serious effort had to be made at the state and municipal level. To accomplish this end, the initial federal air pollution control act, the Clean Air Act of 1963, authorized the Secretary of Health, Education and Welfare to provide financial assistance to local and regional control agencies. A more generous scheme of financing is currently in effect, pusuant to the provisions of the Air Quality Act of 1967.

Specifically, the Secretary can award grants to state, local, and regional air pollution control agencies for any of the following purposes—"the planning, developing, establishing, improving..." or maintaining of programs for air pollution control and of programs for the implementation of air quality standards. The grants are made on a matching basis, and the federal share can amount to two-thirds of the cost of planning, developing, establishing, or improving control programs by state or local agencies.⁴⁰ In order to encourage efforts to deal with air pollution on a regional scale, a greater degree of assistance, with the federal government assuming up to three-fourths of the cost, is available for the establishment of intermunicipal or interstate control agencies.⁴¹ The grant provision for maintaining control programs authorizes the Secretary to make grants to state and local agencies in amounts up to one-half and to intermunicipal or interstate control agencies in amounts up to three-fifths of the cost of maintaining control programs.⁴²

The Air Quality Act of 1967 also added several new grant provisions. Section 104(a)(2) provides for federal grants "to public or nonprofit agencies, institutions, and organizations and to individuals" for payment of (A) part of the cost of constructing or operating industry wide control devices and (B) carrying out the other provisions of section 104. However, grants under this section are limited to \$1,500,000. Section 106(a), another new section, authorizes the Secretary to pay up to one hundred percent of the air quality planning program costs of any interstate air quality agency or commission for a two year period. This section is designed to expedite the establishment of air quality standards in air quality control regions designated pursuant to Section 107(a)(2). At the end of the initial two-year period, up to three-fourths of the air quality planning program costs of an interstate agency can

^{38. 42} U.S.C. § 1857c (1964).

^{39.} Air Quality Act of 1967, §§ 105, 106, 209.

^{40.} Air Quality Act of 1967, § 105.

^{41.} Air Quality Act of 1967, § 106.

^{42.} Air Quality Act of 1967, § 105.

be funded by the federal government.⁴³ In effect, after two years, the agency is treated like an interstate or intermunicipal agency for grant purposes under Section 105(a)(1).

The 1967 Act also authorized the Secretary to make grants of up to two-thirds of the cost of developing programs of testing and inspection of uniform motor emission devices.⁴⁴ Such grants are conditioned on certification by the Secretary of Transportation that the state program is consistent with certain highway safety programs undertaken by the federal government.⁴⁵

There are two major concerns in the grant program—(1) that federal assistance will supplement state and local funds, rather than supplant them, and (2) that financial assistance be conditioned on meeting certain federal requirements designed to insure effective air pollution control efforts.

Satisfaction of the first standard requires that state and local governments meet their share of the costs of control programs so that federal funds do not become a substitute. Under the 1963 provisions of the Clean Air Act no agency could receive any grant "during any fiscal year when its expenditures of non-federal funds for air pollution programs will be less than its expenditures were for such programs during the preceding fiscal year."⁴⁶

As further stimulus to development of local financing and conservation of HEW's funds, the Air Quality Act provides that:

respect to the maintenance of a program for the prevention and control of air pollution unless the Secretary is satisfied that such grant will be so used as to supplement and, to the extent practicable, increase the level of State, local, and other non-Federal funds that would in the absence of such grant be made available for the maintenance of such program, and will in no event supplant such State, local, and other non-Federal funds.⁴⁷

The second major concern—that federal assistance be conditioned on the requirements that will insure effective control programs—is reflected in two amendments in the Air Quality Act of 1967 and in the provision authorizing the Secretary to issue regulations concerning grants. The 1967 provisions apply only to regional air quality control

^{43.} Air Quality Act of 1967, § 106 (a).

^{44.} Air Quality Act of 1967, § 209.

^{45.} Id.

^{46. 42} U.S.C. § 1857c (b) (1964).

^{47.} Air Quality Act of 1967, § 105(b).

programs. The first section conditions the approval of any grant on the assurance that such regional agency provides for adequate representation of "... appropriate state, interstate, local, and (when appropriate) international, interests."⁴⁸ The second section conditions the approval of any planning grant on "... assurances that such regional agency has the capability of developing a comprehensive air quality plan for the air quality control region."⁴⁹ In connection with such a plan, the Act requires the inclusion of a recommended system of alerts to avert situations of imminent and serious danger and of "... the various aspects relevant to the establishment of air quality standards for such air quality control region, including the concentration of industries, other commercial establishments, population and naturally occurring factors which shall affect such standards."⁵⁰

In making grants to air pollution control agencies, the Secretary is directed to establish regulations setting such terms and conditions as the Secretary may find necessary.⁵¹ The terms and conditions embodied in the current regulations reflect the two major concerns of the grant program—that federal grants will stimulate, rather than supplant, non-federal funds, and that the grant supported projects will improve air pollution control efforts. In support of the first objective, the regulations incorporate the substantive provisions in the Clean Air Act.⁵² In support of the second objective—to improve control efforts—the regulations require a "Workable Program" as a condition for both project grants and maintenance grants.⁵³

The regulations require an accounting for grant payments.⁵⁴ In addition, the applicant agency cannot make changes in the project or program that greatly change its original objective or increase its cost

^{48.} Air Quality Act of 1967, § 105(a)(2).

^{49.} Air Quality Act of 1967, § 105(a)(3).

^{50.} Id.

^{51.} In establishing the regulations, the Secretary consider "...(1) the population, (2) the extent of the actual or potential air pollution problem, and (3) the financial need of the respective agencies." Air Quality Act of 1967, § 105(b).

^{52.} See 32 Fed. Reg. 7830 §§ 56.24, 56.30 (1967).

^{53. 32} Fed. Reg. 7830 §§ 56.21, 56.23, 56.31 (1967). The "Workable Program" requirement is not in the statute; it implements section 105(b) of the Air Quality Act of 1967. The "Workable Program" necessary for a project grant for establishing or improving an air pollution control program refers to the applicant's legal authority, responsibility and administrative organization. The Surgeon General approves the "Workable Program" if it ". . . is reasonably calculated to prevent and control air pollution within the jurisdiction of the applicant." 32 Fed. Reg. 7832, § 56.21 (1967).

^{54. 32} Fed. Reg. 7834, § 56.43 (1967).

without prior approval by the Surgeon General.⁵⁵ An overview of the terms and conditions stated in the regulations above reflects a rigid policy of the federal government that is determined to make the state and local governments meet their share of responsibility for controlling air pollution. To summarize, the regulations require as conditions for grants (1) the availability and use of non-federal funds, and (2) proof through the "Workable Program" standard that control efforts be effective.

Intergovernmental relations under the federal grant program are primarily federal—local as opposed to federal-state-local. The Clean Air and Air Quality Acts do not channel the grants through a central state agency, but rather they are made directly to the recipient agencies. For Yet state control of the grants is still exerted. The Acts provide that "no grant shall be made. . .until the Secretary has consulted with the appropriate official as designated by the Governor or Governors of the State or States affected." The Acts' regulations condition grants and the approval of a "Workable Program" in the same language. Moreover, the Surgeon General is not authorized to approve maintenance "Workable Programs" if they conflict with the activities of the state air pollution control agency. For the state air pollution control agency.

Whether the consultation requirement amounts to a sufficient state approval requirement is unclear, but consultations can exert enough influence to justify the conclusion that there is state participation in the grant procedure. The state role certainly appears considerably greater in the air pollution control field than in the urban renewal program in which the state role is confined to the enactment of enabling legislation.⁶⁰ On the other hand, the state participation in the air pollution control grants is far less than that in the federal-aid highway program⁶¹ in which the federal funds are channelled through state highway departments.

The activities supported by the federal grant program are varied. Federal funds are usually used to support the entire control program where new programs are being developed or established. Federal assistance in existing programs may be limited to a single undertaking

^{55. 32} Fed. Reg. 7831, § 56.5(b) (1967).

^{56. 42} U.S.C. § 1857c(a) (1964); Air Quality Act of 1967, § 105(a)(1).

^{57. 42} U.S.C. § 1857c(b) (1964); Air Quality Act of 1967, § 105(b).

^{58. 32} Fed. Reg. 7830, §§ 56.4(c), 56.21(d) (1967).

^{59. 32} Fed. Reg. 7830, § 56.31(b) (1967).

^{60.} D. MANDELKER, MANAGING OUR URBAN ENVIRONMENT 111 (1966).

^{61. 23} U.S.C. § 130 (1964).

or may encompass many of the program's activities.⁶² In all instances, however, the control agency has to show how the federally supported activity should lead to more effective control efforts.⁶³

Federal funds are used for a variety of pollution control related activities. The primary uses are personnel training and increased measurement of the concentration of various atmospheric pollutants (air monitoring). A majority of the control agencies are also using the grant funds to expand their community education programs and strengthen their jurisdiction's pollution control legislation and administrative processes. A "substantial number" of the agencies intend to employ the federal funds in improving their ability to fulfill their inspection and enforcement responsibilities.

The effect of the federal grant program, as one might expect, has been to stimulate greater expenditures for pollution control. Grants totaling \$4.18 million were made to 93 state and local control agencies during the year following the Clean Air Act's enactment. This provoked a 47 percent increase in air pollution control expenditures at all governmental levels. This increase is even more remarkable when one omits California's expenditures—immediately before the beginning of the grant program, California accounted for approximately half of the nation's spending for air pollution control—because the increase then is approximately 78 percent.⁶⁷ The immediate impact of the grants was thus a 50 percent increase in spending for non-federal control programs.⁶⁸

The increase in control programs and in budgets for control agencies certainly meets the intent of Congress to stimulate local expenditures for control efforts, but the enactment of the Air Quality Act of 1967 casts doubts upon the efficacy of the grant-supported control programs under the 1963 Act. Both the Senate Report and House Report on the 1967 Act considered the efforts to control pollution inadequate and called for broadened control programs.⁶⁹

^{62.} Yaffee, supra note 37, at 403, 406.

^{63.} Id.

^{64.} Id. at 408.

^{65.} Id.

^{66.} Id.

^{68.} Hearings Before the Special Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works, 89th Cong., 2nd Sess. 18 (1966).

^{69.} See generally Hearings on S 780 Before the Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works, 90th Cong., 1st Sess. (1967); H.R. Rep. No. 728, 90th Cong., 1st Sess. (1967).

Several conclusions concerning the inadequacy of the earlier control program are apparent. First, perhaps the federal grants were inadequate in amount and scope. But apparently Congress did not think so, as it did not drastically increase federal grants. Although the grants were increased, this was not of a magnitude to indicate an attempt to overcome a basic deficiency in the program. Second, perhaps the federal grants were poorly policed, thereby permitting waste and inefficiency; this, too, is rebutted by the stringent conditions for grants in the regulations, however. Third, perhaps the legal framework within which the state and local control agencies operated stultified efficient and effective control efforts even where federal money was provided. The Air Quality Act supports this position as it amended the framework for the abatement of pollution—the use of air quality standards on a regional basis.

But was this change sufficient? The basic legal framework was retained—that of state and local responsibility for the prevention and abatement of air pollution. This suggests a fourth conclusion. Perhaps the grants of federal assistance to state and local control agencies for control of air pollution is not feasible in view of the local pressures. If this is true, the need is for greater federal participation in the control of air pollution, rather than increased federal aid. Ideally this would mean federally established and administered national emission standards.

IV. THE FEDERAL ABATEMENT PROGRAM

The eight years following the 1955 Air Pollution Control Act saw a worsening of air pollution problems and a rapid advance in technology necessary for control. Attention began to shift to enforcement considerations. During this time, the responsibility for prevention and control of air pollution was left to the state and local governments. While technical knowledge was adequate to cope with many problems, by 1963 Congress recognized the need to overcome a variety of political and economic obstacles that were hindering effective enforcement efforts at the state and local level. Experience in controlling water

^{70.} Hearings on H.R. before the Subcomm. on Public Health and Welfare of the House Comm. on Interstate and Foreign Commerce, 88th Cong., 1st Sess. 31 (1963) (Statement of Ivan A. Nestingen. Under Secretary of Health, Education and Welfare).

^{71.} Megonnell, Developing Abatement Policies under the Clean Air Act, 16 J. AIR POLLUTION CONTROL Ass'N 254, 256 (1966).

pollution had proven that local efforts alone were inadequate and suggested that the federal government should participate in air pollution control.⁷² In testimony before the Senate Special Subcommittee on Air and Water Pollution, Senator Ribicoff warned against "smothering this problem with a blanket of states' rights," and urged that a Federal abatement program could help to overcome many local pressures.⁷³

The federal control program began with the Clean Air Act of 1963. This Act provides for the abatement of interstate and intrastate air pollution, air pollution from federal facilities and installations, motor vehicle exhaust pollution, and for the prevention of potential air pollution problems.⁷⁴ The federal role in the abatement and control of air pollution was limited in deference to the policy that regulatory control shall remain the primary responsibility of state and local governments.⁷⁵ The circumstances permitting federal participation were limited, and the procedures were complicated and time-consuming. This procedure involved three basic steps: conference, public hearings, and court action. 76 During any of the above steps, federal action was halted if it was determined by the Secretary that the air pollution problem had been corrected or that reasonable progress was being made toward abatement. The Abatement Branch of the Division of Air Pollution. Public Health Service, Department of Health, Education and Welfare, carried out these activities. This process was intended to give the state and local control agencies sufficient opportunity to secure abatement before sanctions under the federal law were imposed.77

The Air Quality Act of 1967 changed the basic federal approach to pollution abatement. It calls for the establishment and enforcement of air quality standards on a regional basis. Although the initial responsibility for establishing the standards and implementation plans

^{72.} Hearings Before the Special Subcomm. on Air and Water Pollution of the Senate Comm. of Public Works, 88th Cong., 1st Sess. 42 (1963).

Senator Ribicoff gave the classic example problem confronting local control agencies. The plant emitting pollutants threatens to move, and the union, mayor, and industry put pressure on the control agency to desist. Senator Ribicoff testified that the only way to solve the air pollution problem was for the Federal Government to step in and remove the enforcement procedures from local pressure.

^{73.} Id.

^{74.} H.R. Rep. No. 508, 88th Cong., 1st Sess. (1963), in U.S. Code Cong. & Ad. News 1263 (1963).

^{75.} Id.

^{76.} See Megonnell, supra note 71, at 254, 255.

^{77.} Id.

rests with the states, federal participation insures the success of this approach by assisting the states in setting up air quality standards and plans for enforcement and by assuming the ultimate responsibility when the states fail to act or their progress is inadequate.

The Air Quality Act of 1967 added a provision establishing an Air Advisory Board and authorizing the establishment of advisory committees.⁷⁸ It is the basic responsibility of the Board to:⁷⁹

advise and consult with the Secretary on matters of policy relating to the activities and functions of the Secretary under this Act and make such recommendations as it deems necessary to the President.

Thus, the Secretary can establish the Advisory Boards to assist in the development and implementation of "air quality criteria, recommended control techniques, standards, research, and development."80

A. The Air Quality Control Program

The procedures under the 1967 Act are designed to give the state and local agencies both time and encouragement to meet the requirements of the Act before the federal government takes action.⁸¹

1. The Establishment of Air Quality Standards

The Air Quality Act envisages a program of regional attack on air pollution. As a prelude to the establishment of standards, the Secretary of Health, Education and Welfare must define atmospheric areas and designate air quality control regions. Eight atmospheric areas have been defined covering all of the continental United States. These areas are essentially homogeneous in terms of climate, meteorology, and topography. The next step, designation of air quality control regions, must be completed within eighteen months from the date of enactment of the Air Quality Act. The regions will be designated after consultation with appropriate state and local authorities, on the basis of factors which suggest that a group of communities should be treated as a unit for setting and implementing air quality standards. Factors to be considered include jurisdictional boundaries, urban-

^{78.} Air Quality Act of 1967, § 110(a)(1).

^{79.} Id. at § 110(b).

^{80.} Id. at § 110(d).

^{81.} Id. at § 108(b).

^{82.} Id. at § 107(a).

^{83.} Air/Water Pollution Report, Jan. 19, 1968, at 38.

^{84.} Air Quality Act of 1967, § 107(a).

^{85.} Air/Water Pollution Report, Jan. 19, 1968, at 38.

industrial concentrations, the nature and location of air pollution sources, and meteorological and topographical considerations.⁸⁶

The next step in the establishment of standards is the development of air quality criteria. After consultation with advisory committees and federal agencies, the Secretary shall formulate air quality criteria which are needed for the protection of public health and welfare.⁸⁷ The Act requires that the air quality criteria accurately identify an air pollution agent, or combination of agents and describe the effects of these pollutants on the public health.⁸⁸ The criteria shall identify any pollutant which may have an effect on public health or welfare.

The final step before the setting of standards is the issuance by the Secretary of recommended pollution control techniques. The Secretary issues the pollution control techniques in order to show the state and local agencies how to achieve the level of air quality which the Secretary's criteria requires. The criteria and recommended control techniques will be issued simultaneously, and will be published in the Federal Register. 90

The designation of atmospheric areas and air quality control regions, and the issuance of air quality criteria and recommended pollution control techniques are all prerequisites to the establishment of air quality standards by the states within the regions. These preliminary steps show the federal government in its role of providing assistance and encouragement to the states. The only state and local function in these early stages is consultation with the Secretary in the designation of control regions. The development of criteria is completely free of state and local influence since the Secretary is only required to consult with advisory committees and federal agencies. Supposedly, this permits the development of criteria to be based solely on health and welfare considerations, with no thought given to the translation of criteria into standards for the abatement of pollution.

In order to encourage the development of air quality standards in an interstate air quality control region, the Secretary may either (1) provide financial assistance to interstate air quality agencies "which are capable of recommending to the Governor standards of air quality

^{86.} Id.

^{87.} Air Quality Act of 1967, § 107(b)(1).

^{88.} Id. at § 107(b)(2).

^{89.} Id. at § 107(c).

^{90.} Air/Water Pollution Report, Jan. 19, 1968, at 38.

^{91.} Air Quality Act of 1967, § 107(b)(1).

and plans for implementation,"92 or (2) "after consultation with the Governors of the affected states, designate or establish an air quality commission for the purpose of developing recommended... standards for the control region."93 The established commission will consist of the Secretary and "adequate representation of appropriate state, interstate, local and (when appropriate) international interests in the designated air quality control region."94 The commission will be funded by the Department of Health, Education and Welfare.

The states have the initial responsibility for establishing air quality standards, 95 but the 1967 Act provides for the Secretary to assume the ultimate responsibility in the event (1) a state fails to set standards or (2) the state standards are not consistent with the air quality criteria published by the Secretary. 96

If a state wishes to undertake the responsibility of setting standards, it must follow an established procedure. The Act provides:

adopt, after public hearings, ambient air quality standards applicable to any designated air quality control regions . . . and if the Secretary determines that such State standards are consistent with the air quality criteria and recommended control techniques . . . and that a means of enforcement . . . is provided, . . . be the air quality standards applicable to such State. 97

This procedure has a timetable that is designed to give the states more than ample time to establish standards. For example, the letter of intent must be filed within ninety days after the receipt of the HEW-issued criteria and recommended control techniques; the state must adopt, after public hearings, ambient air quality standards within 180 days after the filing of the letter of intent (and from time-to-time thereafter); and the abatement plans must be adopted within 180 days after the adoption of each air quality standard. The timetable runs from the issuance of criteria and recommended control techniques by the Secretary. Considering that the Department of Health, Education and Welfare is permitted eighteen months from the date of enactment—November 21, 1967—in which to designate quality control

^{92.} Id. at § 106(a).

^{93.} Id. at § 106(b).

^{94.} Id. at § 106(b)(2).

^{95.} Id. at § 108(c)(1).

^{96.} Id. at § 108(c)(2).

^{97.} Id. at § 108(c)(1).

^{98.} Id.

regions, and that there is no time limitation on the issuance of criteria, and allowing for administrative delays, it is unlikely even with state cooperation that regional standards would be established within two years of the enactment of the Air Quality Act. Without state cooperation the process could easily take four years or more.

If a state does not cooperate in the establishment of standards, the Act provides for the Secretary of Health, Education and Welfare to establish standards.99 This authority may be exercised when either (1) the state does not file a letter of intent, or (2) the state does not set standards which meet the approval of the Secretary. 100 While the Secretary has the power to propose standards, he must be certain that his standards of air quality are not incompatible with the air quality criteria and control techniques of the control region. After the Secretary's standards are proposed, the affected state still can adopt those standards (within six months), and thus preclude federal action. 101 However, if the state does not adopt the standards set out in the regulations within six months, then the standards set by the Secretary shall become "promulgated". 102 Any state upon which standards have been imposed has the right to petition for a hearing. The Act provides a procedure for these hearings which insures adequate local or regional representation on the appeal board. 103 After conducting the hearing, the appeal board either approves the Secretary's standards or recommends specific modifications of them. The standards become effective immediately after approval or modification. 104

The procedures for establishing air quality standards are applicable to the revision of such standards. However, there is an additional provision for revision which provides that the Governor of any state affected by air quality standards in the region may petition the Secretary for a revision of such standards.¹⁰⁵ The Act does not delineate to which situations this provision would apply, but it would seem to embrace the situation where a state outside the air quality control region is affected by the region's air standards, and it may cover the situation where a state inside the region would rather have the Secretary establish air quality standards because of the expertise

^{99.} Id. at § 108(c)(2).

^{100.} Id.

^{101.} Id.

^{102.} Id.

^{103.} Id. at § 108(c)(3).

^{104.} Id.

^{105.} Id. at § 108(c)(2).

or expense required. However, in the latter situation, the result could be achieved by failure to file a letter of intent.

The above procedures insure that air quality standards will be established in every state in the air quality control region. If a state elects to act, the federal role is one of assistance, but if a state does not act, the federal government will assume the ultimate burden or responsibility for promulgating standards. It is important to emphasize that these procedures must be utilized for each pollutant in each state in the air quality control region. Therefore, the establishment of standards for one pollutant in one state will not represent the achievement of the desired air quality in the area. The desired air quality control will be accomplished only when standards are established in each state in the control region for all known pollutants and the standards are satisfactorily enforced.

2. The Enforcement of Air Quality Standards

Once an air quality standard is established, either by a state or by the Secretary, the state and local control agencies have the initial responsibility for enforcing the standards. In the case of a state-established standard, a requisite to the Secretary's approval is a satisfactory enforcement plan, and in the case of a Secretary-established standard, the enforcement is still left to the state and local control agencies. However, the Department of Health, Education and Welfare bears the ultimate responsibility for insuring that the air quality in a control region meets the established standards.

Whenever, on the basis of surveys, studies, and reports, the Secretary finds that the ambient air quality of any air quality control region or portion thereof is below the air quality standards established . . . and he finds that such lowered air quality results from the failure of a state to take reasonable action to enforce such standards, the Secretary shall notify the affected state or states, persons contributing to the alleged violation, and other interested parties of the violation of such standards. 106

If the failure of the state to enforce such standards is not corrected within 180 days from the date of notification, the Secretary is authorized to take action to secure abatement.¹⁰⁷

The authority to abate pollution within air quality control regions under the Air Quality Act of 1967 requires different action for inter-

^{106.} Id. at § 108(c)(4).

^{107.} Id.

state air pollution (pollution of air originating in one state which endangers the health or welfare of persons in another state) than for intrastate pollution (pollution of air endangering the health or welfare of persons in the state of its origin). When two states are involved, the Secretary may request the Attorney General to sue for an abatement of the pollution. In the case of intrastate air pollution, the Secretary may act only at the request of the Governor of such state. The Secretary's action may include technical assistance with regard to abatement of the pollution, or a request to the Attorney General to sue for an abatement of the pollution.

The above actions authorized under the 1967 amendments are identical to the ultimate sanctions authorized under the Clean Air Act of 1963 (and which are retained in Section 108 of the current Act). Although the federal government has authority to abate interstate air pollution, the Act explicitly denies federal authority to abate intrastate air pollution. Therefore like the 1963 Act, the Air Quality Act cannot achieve the desirable air quality within an air quality control region if the below-standard air quality is caused by air pollution characterized as intrastate and the responsible state refuses to abate this pollution.

The Clean Air Act as amended by the Air Quality Act of 1967, rests federal abatement authority and action on a finding of pollution which endangers health or welfare.¹¹¹ Under the older abatement provisions of the Act, this determination is made on an *ad hoc* basis in a long and elaborate procedure.¹¹² Now, the determination of "danger to health and welfare" is made with reference to air quality standards whose basis reflects the point of danger to health and welfare of various pollutants. This enables the control agency to compare the amount of pollution in the air with standards to see if the public health or welfare is in danger. Thus the use of standards is a refinement of the older abatement provisions since the standards provide a point of reference in the determination of what pollution should be abated.

However, the Air Quality Act does not use the concept of standards to full advantage because the standards are not subject to judicial review before they are enforced. The Act provides for a pre-

^{108.} Id. at § 108(g)(2).

^{109.} Id. at § 108(c)(4)(ii).

^{110.} Id. at § 108(g)(2).

^{111.} Id. at § 108(c)(4).

^{112.} Id. at § 108(d)-(h).

liminary review by a hearing board when the standards are first established, but full judicial review is deferred until the standards are enforced. Indeed, it is not until a violation of the standards is charged that they can be challenged and subjected to a judicial review.¹¹³ Since the standards can be challenged every time they are enforced against an alleged violator, the net result would not appear to be very much of an improvement over the older abatement provisions. Abatement would still rest on an *ad hoc* determination that pollution above a certain level is dangerous to health or welfare, and that abatement is technologically and economically feasible.

The Air Quality Act continues the basic approach of the Clean Air Act—the regulation of air quality. Underlying this approach is the assumption that pollution need only be controlled to the extent necessary to achieve the desired air quality. This assumption does not take into account the possibility that standards of air quality may not protect health or safety when the long-range effect of pollution is considered. Although this assumtion may be warranted in the short-run, the long range effects of pollution on health and on our environment are as yet unknown. Therefore, it seems risky and foolish to limit pollution control to short term effects when the long term effects are unknown and when the technology is available for greater control.

An alternative to the air quality approach is the approach employed in Title II which controls motor vehicle pollution—that is, the regulation of the source of emission. Instead of applying standards to air quality, this approach applies standards to the emission of pollutants from sources.114 This approach has several advantages over the air quality approach. First, it does not involve the complex, costly, and time-consuming establishment of air quality standards; second, it controls pollution to the greatest extent feasible in terms of technology and economics, therefore, achieving cleaner air than air quality standards would require; third, enforcement does not depend on variables such as meteorological conditions which affect the degree of concentration of various pollutants; fourth, enforcement is easier since the emission standards are not based on air quality, but on feasible control devices (assuming that the devices are effective and can be tested); fifth, the problem of intrastate pollution is circumvented to the extent that the source has some connection with interstate commerce; and sixth, the elimination of the economic disadvantage in complying with

^{113.} Id. at § 108(c)(4).

^{114.} Id. at § 202.

local requirements and of the temptation for industry to leave or avoid areas where local controls are necessary or stringent.

B. Abatement of Interstate Pollution

The Air Quality Act of 1967 retained the abatement provisions of the Clean Air Act. According to the Senate Report, during the period while air quality standards are being established and finally enforced, many interstate and intrastate regions will continue to have interim air pollution problems; therefore, the old abatement provisions will serve to abate pollution in this interim period. Furthermore, the old provisions will apply to pollution problems arising in areas not part of a designated air quality control region.

The Clean Air Act of 1963 filled one of the conspicuous gaps in air pollution control—the control of interstate air pollution. Some seventy major urban areas in the United States adjoin or overlap state boundaries. When pollution from one state affected people in an adjacent state, there was no way for those being harmed to force the first state to control the pollution originating within its borders. The Clean Air Act authorized the Secretary of Health, Education and Welfare to participate in abatement actions involving interstate air pollution either upon official request on his own initiative. Since slightly different policies and procedures for actions initiated on request than those initiated by the Secretary, they will be treated separately.

When requested by the appropriate authority, usually one from the affected state, the Secretary is instructed to give notice to the appropriate air pollution control agencies and to the public by publication and call a conference of such agencies.¹¹⁹ It is mandatory that this conference be called, therefore giving requested actions priority over Secre-

^{115.} S. REP. No. 403, 90th Cong., 1st Sess. 31 (1967).

^{116.} Although the control of interstate air pollution was possible through interstate compacts prior to the 1963 Act, such compacts were ineffective and required considerable periods of time to establish. As Senator Ribicoff testified, "... The history of negotiations on interstate compacts shows that it takes an average of at least eight years to negotiate such agreements." Hearings on S. 432, S. 444, S. 1009, S. 1040, S. 1124, and H.R. 6518 Before a Special Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works, 88th Cong., 1st Sess. 47 (1963).

^{117.} Clean Air Act, 42 U.S.C. § 1857d(c)(1)(A) (Supp. 1967) ("Official request" in this instance is defined as request from the governor of any state, a state air pollution control agency, or the governing body of any municipality if the governor and state air pollution control agency concur).

^{118.} Clean Air Act, 42 U.S.C. § 1857d(c)(1)(C).

^{119.} Air Quality Act of 1967, § 108(d)(1)(A).

tary-initiated abatement activities and responsibilities.¹²⁰ Prior to the conference, the Abatement Branch of the Division of Air Pollution collects and evaluates pertinent data and information concerning the particular air pollution problem.¹²¹ In addition to on-site investigations by the Abatement Branch, information may be required from the alleged polluter himself in the form of reports on emissions and controls; all data is then reviewed by the Abatement Branch keeping in mind the current technical capability to solve any problems that are found.¹²² At least thirty (30) days prior to any such conference, the Secretary shall make the report of the Abatement Branch, which shall contain the data collected and any conclusions drawn therefrom, available to the involved agencies and other interested parties and shall also give the public notice of the scheduled hearing by publication in local newspapers.¹²³

Participation in the Conference is limited to official representatives of the concerned states, federal, and local air pollution control agencies, their invitees, and the Secretary of Health, Education and Welfare. Open to the public, the proceedings are not adversarial but do permit discussions of the problems raised. Agencies of the requesting state are expected to present evidence or information to support their claim that pollution is endangering their citizens health and welfare and to show attempts taken by them to correct the problem and the results of such attempts. Agencies with jurisdiction over the alleged sources of pollution should present their findings, if any, as to the source of the pollution; discuss their legal powers and limita-

^{120.} Megonnell and Griswold, Federal Air Pollution Prevention and Abatement Responsibilities and Operation, 16 J. Air. Poll. Control Ass'n 526 (1966); Megonnell, Developing Abatement Policies under the Clean Air Act, 16 J. Air Poll. Control Ass'n 254, 255 (1966).

^{121.} There are several factors used in determining the selection of interstate pollution problems to be attacked. The Abatement Branch considers the technical information available, the community size, the nature and complexity of the pollution problem, the geography, and the state and local efforts at control. The weight accorded to each factor is not disclosed or apparent. Megonnell and Griswold, Federal Air Pollution Prevention and Abatement Responsibilities and Operation, 16 J. AIR POLL. CONTROL ASS'N 526, 527 (1966).

^{122.} Megonnell and Griswold, Federal Air Pollution Prevention and Abatement Responsibilities and Operation, 16 J. AIR POLL. CONTROL Ass'N 526 (1966).

^{123.} Air Quality Act of 1967, § 108(d)(2).

^{124.} Megonnell and Griswold, Federal Air Pollution Prevention and Abatement Responsibilities and Operation, 16 J. AIR POLL. CONTROL Ass'N 526 (1966).

^{125.} Id.

^{126.} Id.

tions; and, the results of any corrective activity undertaken.¹²⁷ A transcript of the proceedings is required.¹²⁸

Following all presentations at the Conference, an Executive Session is held to discuss the information presented and to attempt to reach a voluntary agreement on possible abatement procedures and schedules. 129 If, after the Conference, the Secretary decides effective progress toward abatement of the pollution is not being made and that the health of people is still being endangered, he shall "recommend" to the appropriate control agency or agencies that the necessary remedial action be taken, allowing at least six months for the completion of such action.¹³⁰ At the conclusion of this period, if action has not been taken which would normally be sufficient to correct the problem, the Secretary shall, upon three weeks notice to the air pollution agencies, call a public hearing in or near the place where the pollution is originating.131 It is significant that the federal government deals not with the alleged polluter but only with the air pollution control agencies except when the enforcement of the remedial recommendations requires court action.132

The hearing board makes new findings as to whether the alleged pollution is in fact occurring and whether effective progress toward abatement is being made. ¹³³ If the board finds pollution is occurring and progress toward its correction is not being made, it recommends to the Secretary any measures it feels may be effective in abating such pollution. ¹³⁴ The Secretary then sends such findings and recommendations to the polluters and the concerned control agencies with a notice and attached time schedule for the abatement of the pollution, but in no case shall the time allowed be less than six months from the date of

^{127.} Id.

^{128.} Air Quality Act of 1967, § 108(d)(3).

^{129.} Megonnell and Griswold, Federal Air Pollution Prevention and Abatement Responsibilities and Operation, 16 J. AIR POLL. CONTROL ASS'N 526 (1966).

^{130.} Air Quality Act of 1967, § 108(e).

^{131.} Air Quality Act of 1967, § 108(f)(1). The hearing board shall consist of five or more persons appointed by the Secretary. Each state discharging pollutants and each state affected by such pollution may select one member; each Federal department or agency having a substantial interest in the subject matter, as determined by the Secretary, may select one member: one member shall be a representative of the appropriate interstate air pollution agency, if one exists, and not less than a majority of the hearing board shall consist of persons other than officers or employees of the Department of Health, Education and Welfare. Id.

^{132.} Megonnell and Griswold, Federal Air Pollution Prevention and Abatement Responsibilities and Operation, 16 J. AIR POLL. CONTROL ASS'N 526, 527 (1966).

^{133.} Air Quality Act of 1967, § 108(f)(2).

^{134.} Air Quality Act of 1967, § 108(f)(3).

the notice.¹³⁵ If action is not taken as requested, the Secretary may request the Attorney General to bring a suit on behalf of the United States in the appropriate United States district court to secure abatement of the interstate pollution.¹³⁶

In any suit brought by the Attorney General, a transcript of the hearing board's proceedings and a copy of their recommendations shall be admitted in evidence.¹³⁷ In rendering its judgment, the court is directed to give consideration to the practicability of complying with such standards in view of the physical and economic feasibility of securing abatement in the manner recommended.¹³⁸

Actions to abate interstate air pollution may, as indicated earlier, be initiated by the Secretary. Interstate metropolitan areas are under continual surveillance by air pollution authorities and when necessary, investigations are made to more specifically determine whether air pollution from one state is endangering the health or welfare of persons in another state. When the information from the surveillance and investigations confirms interstate pollution, the Secretary may initiate an abatement action by consulting with state officials of all affected states. The consultation step is a significant difference between the Secretary-initiated action and the state-requested action. Another difference is that state-requested actions are mandatory while Secretary-initiated actions are discretionary; therefore, state-requested actions take priority over the Secretary-initiated abatement actions. 141

According to the Act, the consultation step involves only state officials, but in practice, local air pollution control agencies are invited.¹⁴² On the basis of the consultation, reports, surveys, and studies, the Secretary may call a conference if he believes that pollution is endangering the health and welfare of persons in a state other than the source of the pollution.¹⁴³ At the conference stage the only difference

^{135.} Air Quality Act of 1967, § 108(g)(1).

^{136.} Air Quality Act of 1967, § 108(h).

^{137.} Id.

^{138.} Megonnell and Griswold, Federal Air Pollution Prevention and Abatement Responsibilities and Operation, 16 J. Air Poll. Control Ass'n 526, 527 (1966).

^{139.} Air Quality Act of 1967, § 108(d)(1)(C).

^{140.} Megonnell and Griswold, Federal Air Pollution Prevention and Abatement Responsibilities and Operation, 16 J. AIR POLL. CONTROL Ass'N 526 (1966); Megonnell, Developing Abatement Policies under the Clean Air Act, 16 J. AIR POLL. CONTROL Ass'N 254, 255 (1966).

^{141.} See Megonnell and Griswold, Federal Air Pollution Prevention and Abatement Responsibilities and Operation, 16 J. Air Poll. Control Ass'n 526, 527 (1966).

^{142.} Air Quality Act of 1967, § 108(d)(I)(C).

^{143.} Megonnell and Griswold, Federal Air Pollution Prevention and Abatement Responsibilities and Operation, 16 J. AIR POLL. CONTROL ASS'N 526, 527 (1966).

in procedures between state-requested actions and Secretary-initiated actions is that in a Secretary-initiated conference the federal participants, rather than the state agencies, assume the burden of presenting data and information showing the interstate movement of the air pollution and the resultant danger to health or welfare. The statutory procedures beyond the conference stage are exactly the same as those prescribed in the Act for state-requested actions.

Regardless of which of the two procedures is used, during the earliest phases of the abatement procedure an effort is made cooperatively to resolve air pollution problems in accordance with the objectives of the Air Quality Act. 146 This administrative policy is consistent with the Congressional intention favoring a cooperative abatement effort. In reporting on the Clean Air bill, the House Committee said the abatement provisions of the Clean Air Act provide, "... specifically for cooperation with the states, and the conference and hearing procedures authorized are intended to encourage and assist states and local communities in their efforts to control air pollution, not to usurp or preempt their rights, powers, or responsibilities in this field."147 The Committee added that they believed the "procedures provided constitute a reasonable balance between the primary rights of the states to control air pollution within their boundaries and the rights of states seriously affected by pollution from another state to have available to them a practical remedy."148 While the House bill, as reported, required certification by the governors of the states being threatened by the air pollution before the Attorney General could sue on behalf of the United States,149 this provision was omitted by the Senate, and the Conference Report adopted the Senate version. 150

Congress viewed the abatement provisions of the Clean Air Act as an appropriate framework for federal participation in abatement proceedings consistent with the over-all policy of placing the major responsibility for abatement on state and local governments. At the same time, cognizant of the inherent difficulties in abating air pollution

^{144.} See notes 129-37 and accompanying text, supra.

^{145.} Megonnell and Griswold, Federal Air Pollution Prevention and Abatement Responsibilities and Operation, 16 J. AIR POLL. CONTROL ASS'N 526, 527 (1966).

^{146.} H.R. REP. No. 508, 88th Cong., 1 Sess. 9 (1963).

^{147.} Id.

^{148.} Id. at 8.

^{149.} Id. at U.S. Code Cong. & Ad. News 1283-84 (1963).

^{150.} Conference Rep. No. 1003, 88th Cong., 1st Sess. (1963), in U.S. Code Cong. & Ad. News at 1283-84 (1963).

originating outside the jurisdiction affected, Congress provided for federal participation in the abatement of interstate air pollution problems in the event state and local control agencies did not abate this pollution. In this respect, the abatement provisions concerning interstate pollution are patterned generally after the abatement provisions in the Federal Water Pollution Act.¹⁵¹

The complexities of the abatement procedures in the Air Quality Act reflect the Congressional intent of securing abatement by cooperation with state and local control agencies. There are two mandatory six month periods—one after the conference and another after the hearing¹⁵²—designed to give the appropriate agencies as well as the polluter an opportunity to take corrective measures. In addition, administrative time allowances may add substantially to the statutory time allowanced.¹⁵³ Experience under the water pollution control program had indicated that resorting to the last step, court action by the Attorney General, is necessary only under aggravated circumstances and that much of the success of the abatement program results from cooperative action at the local level.¹⁵⁴ However, Congress did not overlook the potential necessity of enforcement by court action.¹⁵⁵

Although the interstate abatement procedures may be designed to permit appropriate state and local control agencies an opportunity to abate the pollution and to give the alleged polluter ample time to take corrective steps before the involvement, the system is not an effective means of actually securing abatement or of controlling air pollution. Through October 1966, only nine abatement actions had been initiated; ¹⁵⁶ certainly these nine interstate actions do not reflect the extent of the interstate air pollution problem. By the end of 1967, only

^{151.} Report of the Dep't of Health, Education and Welfare in H.R. Rep. No. 508, 88th Cong., 1st Sess. 12 (1963).

^{152.} Clean Air Act, 42 U.S.C. §§ 1857d(d) & (e)(3) (1964).

^{153.} Testimony of Nestingen in 1963 House Hearings before Subcomm. on Public Health and Welfare of House Comm. on Interstate and Foreign Commerce, 88th Cong., 1st Sess. 35 (1963).

^{154.} Id. at 35-36. At the time of the Hearings in March, 1963, only one suit had been brought by the Attorney General under the water pollution abatement provisions enacted in 1961. Id.

^{155.} Air Quality Act of 1967, § 108(g).

^{156.} Bishop, Maryland and Shelbyville, Delaware; Ticonderoga, New York and Shore-ham, Vermont; New York, N.Y. and adjacent New Jersey; Parkersburg, West Virginia and Marietta, Ohio; Kansas City, Missouri and Kansas City, Kansas; Steubenville, Ohio and Weirton and Wheeling, West Virginia; Ironton, Ohio-Ashland, Kentucky and Huntington, West Virginia; Lewiston, Idaho and Clarkston, Washington; and, the Washington, D.C. metropolitan area. 16 J. AIR POLL. CONTROL Ass'n 522 (1966).

one of these actions had proceeded to the hearing stage; others were still in the pre-hearing stages. Whether the success or failure of the procedure is reflected by these abatement actions is unclear from the records, but the fact that most of these actions are still current suggests that the pollution has not yet been abated or controlled.

Although this interstate abatement process ultimately results in federal abatement if the pollution is not controlled by local agencies or by the polluter, the weakness of this process rests in the complex and lengthy procedure and in the lack of objective criteria. The steps are time-consuming and they present numerous obstacles to abatement. Each stage—consultation, conference, hearing, and finally court suit—affords another opportunity for the polluter to resist abatement. But more important, during this arduous procedure the pollution continues for a substantial period of time, especially if the alleged polluter fights abatement at every step and uses dilatory tactics.

The more serious weakness, however, is the absence of objective criteria. Under the Act the only pollution which is subject to abatement is that air pollution which endangers health or welfare. There are no objective standards or criteria to aid in the determination that certain air pollution is or is not endangering health or welfare. This determination is extremely difficult in view of such considerations as weather conditions, the degree of the alleged polluter's contribution to the area's air pollution, the degree of pollution concentration which is harmful to health or welfare, to name but a few. This lack of objective criterita against which to measure pollution to see if it endangers health or welfare encourages the alleged polluter to contest such a finding. Since each stage of the abatement proceeding reviews the record anew and makes its own finding, the alleged polluter can challenge adverse findings at every stage. 157 Therefore, in the absence of objective criteria, the determination of "danger to health or welfare" must be made on an ad hoc basis at every stage in the abatement procedure.

C. Abatement of Intrastate Air Pollution

Intrastate air pollution is defined by the Air Quality Act as "pollution which is endangering the health or welfare of persons only in the state in which the discharge or discharges originate." The federal role in the abatement of intrastate air pollution is limited to technolog-

^{157.} See notes 152-62 and accompanying text.

^{158.} Air Quality Act of 1967, § 108(d)(1)(B).

ical assistance and token participation, and only upon request by the state governor, a state air pollution control agency, or (with the concurrence of the governor and the state air pollution control agency) the governing body of any municipality.¹⁵⁹ In general, enforcement remains the responsibility of the state concerned, but the Air Quality Act provides a means for dealing with intrastate problems that may be beyond the resources available to state and local control agencies.

The procedure for the abatement of intrastate air pollution problems is very similar to that for the abatement of interstate pollution initiated by request. If the governor, a state control agency, or a local governing body (with the consent of the governor and the state air pollution control agency) requests the Secretary to invoke the federal abatement procedure, the Secretary may call a conference if in his judgment the effect of such pollution is sufficient to warrant exercise of federal jurisdiction. Therefore, this provision does not make the calling of a conference mandatory. If the Secretary elects to assert federal jurisdiction, the procedures are the same as those for the abatement of interstate pollution through the conference and the hearing stages. After the hearing and recommendations, if action reasonably calculated to secure abatement of the pollution is not taken within the time specified, the Secretary:

... at the request of the Governor of such State, shall provide such technical and other assistance as in his judgment is necessary to assist the State in judicial proceedings to secure abatement of the pollution under State or local law or, at the request of the Governor of such State, shall request the Attorney General to bring suit on behalf of the United States in the appropriate United States district court to secure abatement of the pollution. 161

The intrastate provisions of the Clean Air Act or the Air Quality Act have never been invoked, and it is not likely that requests for such federal assistance will be numerous. The federal role is minimal in view of the two requests—one to invoke the conference and hearing procedure, and the second to invoke federal assistance or federal court action. The justification for this provision is the policy of leaving con-

^{159.} H.R. Rep. No. 598, 88th Cong., 1st Sess. (1963), in U.S. Code Cong. & Ad. News at 1271 (1963).

^{160.} Air Quality Act of 1967, § 108(d)(1)(B).

^{161.} Air Quality Act of 1967, § 108(g)(2).

^{162.} Megonnell and Griswold, Federal Air Pollution Prevention and Abatement Responsibilities and Operation, 16 J. AIR POLL. CONTROL ASS'N 526 (1966).

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trol regulation to the state and local agencies as well as the policy favoring federal cooperation in abatement proceedings. Nevertheless, it will result in leaving substantial sources of air pollution unchecked if states fail to take abatement action.

D. Abatement of Imminent and Dangerous Air Pollution Problems

A new provision in the Air Quality Act of 1967 provided for the special handling of a situation in which a particular pollution problem created an "imminent and substantial endangerment" to the health of persons. 163 The purpose of the provision is to provide a means by which the Secretary may meet extreme emergency situations. It is not intended to deal with those situations which may reasonably be handled by other provisions.¹⁶⁴ This provision seeks to encourage solving of the problem at the state or local level by requiring (1) adoption of such a plan to meet emergency pollution problems in a plan which a state follows in accordance with the act, 185 and (2) allowance by the Secretary for state or local handling before initiating federal action. 166 In the event such action is not taken by state or local authorities, the Attorney General, at the request of the Secretary, may sue to enjoin further emission from any contributors or take other measures which may prove necessary,167 with any injunction to issue without regard to "technological and economic feasibility." 168

Secretary Gardner stated his position regarding the manner in which the act should be implemented to meet emergency situations as follows:

Appropriate action in emergency situations would require detailed knowledge of the nature and location of pollution sources, immediate access to information on local meteorological conditions and air-quality levels, and detailed plans tailored to the local need to shut down or curtail pollution sources.

I will take steps, therefore, to further encourage the local and State control agencies. . . to develop appropriate air-monitoring systems and emergency procedures for curtailing sources of pollution.

^{163.} Air Quality Act of 1967, § 108(k).

^{164.} H.R. REP. No. 728, 90th Cong., 1st Sess. 19 (1967).

^{165.} Air Quality Act of 1967, § 108(c)(1).

^{166.} Id. § 108(k).

^{167.} Id.

^{168.} H.R. REP. No. 728, 90th Cong., 1st Sess. 19 (1967).

Only in this way could I be assured that a decision to seek emergency court action would be based on sound technical information gathered and developed in the locality concerned.¹⁶⁹

E. Abatement of International Air Pollution

In 1965, Congress provided measures to direct abatement of air pollution problems which create dangers to the health and welfare of persons but which cause difficulties in remedy because the source of the pollution lies across an international boundary, with this provision to have effect when reciprocal provisions are in effect in the affected country.¹⁷⁰ In order to eliminate the sources of pollution within the United States which are causing foreign problems, the Secretary may call conferences within the area from which the pollution is originating that are similar to conferences under other provisions of the act but which will include participation of representatives from the affected country. Essentially the same process is taken as is used in the abatement of interstate air pollution; including the conference, the public hearing, and the Attorney General's suit on behalf of the United States.¹⁷¹

F. Prevention of Potential Air Pollution Problems

The 1965 amendments to the Clean Air Act added a provision directed toward control of potential sources of pollution¹⁷² before they become an actual menace.¹⁷³ This approach is taken in the belief that preventing new sources of pollution may well cost less than eliminating them after they are in existence¹⁷⁴ and with the recognition that, once such processes become widely used, they may be impossible to control adequately.¹⁷⁵ Conferences may be called by the Secretary which are quite similar to the abatement conferences. If the results of a conference indicate that pollution problems likely will arise from the source under consideration, the Secretary will submit the findings

^{169.} Hearings on H.R. 9509 and S. 780 before the House Comm. on Interstate and Foreign Commerce, 90th Cong., 1st Sess. 204 (1967).

^{170.} Clean Air Act, 42 U.S.C. § 1857d(c)(1)(D) (Supp. 1967).

^{171.} Id. § 1857d(f)(1)(B) (Supp. 1967).

^{172.} Id. § 1857b(e) (Supp. 1967).

^{173.} U.S. CODE CONG. & AD. NEWS, 89th Cong., 1st Sess., 3612 (1965).

^{174.} Id.

^{175.} Edelman, The Law of Federal Air Pollution Control, 16 J. AIR POLL. CONTROL Ass'N 523, 524 (1966) (statement quoted from the 1962 National Conference on Air Pollution).

and any recommendations for prevention of the problem to the potential polluters and the appropriate control agencies.¹⁷⁶ Though these results are only advisory, they may be submitted at any subsequent proceedings which may come under the abatement provisions of the act.¹⁷⁷

G. Control of Air Pollution from Federal Facilities

In implementation of essentially the same policies that brought about the basic abatement provisions of the Act, specific provisions were made requiring direct cooperation between the Department of Health, Education, and Welfare and other federal agencies for the control of air pollution emanating from the facilities under the control of those agencies. Under this provision, the Secretary established various classes of sources of air pollution for which any federal agency must obtain a permit in order to discharge such pollutants into the air. In bringing federal sources of pollution within the acceptable standard, the various agencies must include provisions for pollution control in new federal facilities which are in conformity to the standards which are set by the Secretary and arrange for a scheduled plan to bring existing facilities up to those standards. This program may be hoped to both operate as an example to others and contribute to a limited degree in the elimination of pollution contributing sources.

H. Control of Motor Vehicle Pollution

The 1963 Clean Air Act, based upon the assumption that there was no technological answer to the motor vehicle exhaust problem, ¹⁸¹ empowers the Secretary to encourage the development of preventive devices and fuels, and requires the Secretary to keep Congress informed of the progress made. ¹⁸² Field hearings conducted by the Senate in 1964 made Congress even more aware of the severity of the automobile pollution problem and of the need for national action. ¹⁸³ By 1965 Congress was convinced that technological developments permit-

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176. Clean Air Act, 42 U.S.C. § 1857b(e) (Supp. 1967).
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^{177.} Id.

^{178.} Id. § 1857f(a) (1964).

^{179.} Id. § 1857f(b) (1964).

^{180.} Exec. Order No. 11,282, 3 C.F.R. 117 (Supp. 1966).

^{181.} Hearings Before the Special Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works, 88th Cong., 2nd Sess., pt. 1, at 31 (1964).

^{182.} Clean Air Act, 42 U.S.C. § 1857e (1964).

^{183.} Hearings Before the Special Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works, 89th Cong., 1st Sess., pt. 1, at 3 (1965).

ted the control of motor vehicle pollution. Control devices were to be supplied on all 1966 model cars distributed in California as required by California law. The automobile industry indicated that equipment reducing tailpipe emission, the major source of motor pollution, had been developed and could be supplied on the 1968 model cars. 184

In 1965 Congress passed the Motor Vehicle Air Pollution Act as an amendment to the Clean Air Act. The Air Quality Act of 1967 added some further amendments and changed the title of this part of the Act to the National Emission Standards Act. 185

The National Emission Standards Act directs the Secretary of the Department of Health, Education, and Welfare to prescribe, by regulation, "standards applicable to the emission of any kind of substance... from new motor vehicles or new motor vehicle engines, which in his judgment cause or contribute... to air pollution which endangers the health or welfare of any persons..."¹⁸⁶

These regulations are to be drafted by the Secretary with technological feasibility and economic realities in mind. They are to take effect when the Secretary feels that a reasonable period for compliance is allowed. But the manner of compliance is entirely for the determination of the manufacturers. These provisions permit the Secretary the flexibility necessary to take prompt advantage of technological improvements which may occur without seeking legislative amendments and the manufacturers may use their ingenuity to develop the most effecient means of compliance. 189

In accordance with the Act, the Secretary first issued regulations on March 30, 1966, applicable only to *new* gasoline powered motor vehicles and to vehicles under one-half ton beginning with the model year

^{184.} U.S. Code Cong. & Ad. News 3611 (1965).

^{185.} Air Quality Act of 1967, § 210. The Air Quality Act of 1967 changed Title II from the Motor Vehicle Pollution Act to the National Emission Standards Act. This part of the Act was broadened to encompass the application of standards to all sources, not just vehicles. In fact, Congress has considered imposing standards on aircraft emissions. Under the 1967 amendments, the Secretary is required to undertake a one-year study of the feasibility and practicability of controlling emissions from jet and piston aircraft engines and to report to Congress on the need to impose national emission standards on aircraft engines.

^{186.} Clean Air Act, 42 U.S.C. § 1857f-1(a) (Supp. 1967).

^{187.} Clean Air Act, 42 U.S.C. § 1857f-1(b) (Supp. 1967).

^{188.} Clean Air Act, 42 U.S.C. § 1857f-1(a) (Supp. 1967).

^{189.} U.S.C. Code Cong. & Ad. News 3621-22 (1965).

1968.¹⁹⁰ The regulations were primarily designed to control the concentration of hydrocarbons and carbon monoxide by setting standards for crankcase emissions and exhaust emissions.¹⁹¹ They also applied to control systems and devices.¹⁹² Because these standards were stated in terms of pollutant concentration in the exhaust flow,¹⁰³ they discriminated against the smaller engines which have a higher concentration of pollutants in their exhaust volume although their exhaust volume and total output of pollutants is less.

On January 4, 1968, new regulations applicable to 1970 models were issued. The standards provide for a more equitable control of motor vehicle pollution in that they are based on a relationship between vehicle weight and exhaust volume. The standards, therefore, vary with the size of the engine. The new regulations, in addition to imposing stricter standards, apply for the first time to diesel-powered vehicles and evaporation of hydrocarbons from gas tanks. 195

Although the standards are directed at the manufacturer,¹⁹⁶ whether they apply to a vehicle depends on where the vehicles are sold. The standards control all *new* motor vehicles introduced into commerce in the United States. Therefore the regulations encompass all new motor vehicles manufactured and sold in the United States, those manufactured outside the United States and imported for sale to the United States,¹⁹⁷ but not those manufactured in the United States solely for export and so labeled.¹⁹⁸

The standards are to be aimed at the most seriously affected metropolitan areas, however, because of the uniqueness and severity of the problems which California faces, the regulations specifically permit California to set standards above the federal standards.¹⁰⁹

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190. 45 C.F.R. §§ 85.10, 85.20 (1968).
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^{191. 45} C.F.R. §§ 85.10-85.20 (1968).

^{192. 45} C.F.R. § 85.12 (1968).

^{193.} Air/Water Pollution Report, Jan. 19, 1968, at 38.

^{194. 45} C.F.R. §§ 85.30, 85.40 (1968).

^{195. 45} C.F.R. §§ 85.20, 85.21 (1968).

^{196.} Clean Air Act, 42 U.S.C. § 1857f-2(a)(1) (Supp. 1968).

^{197.} Id.

^{198.} Clean Air Act, 42 U.S.C. § 1857f-2(b)(3) (Supp. 1968). New motor vehicles manufactured outside the United States in violation of the federal standards may not be imported into this country. However, the Secretary of the Treasury and the Secretary of the Department of Health, Education, and Welfare may, by joint regulation, defer the determination of admission upon terms and conditions appropriate to insure that such automobiles will be brought into conformity with the applicable standards. If admission is refused, these motor vehicles may be exported or disposed of in accordance with the customs laws, so long as they do not come to rest in the United States.

^{199.} Air Quality Act of 1967, § 208(b).

Enforcement of the emission standards is prescribed by means of a certification procedure. To ascertain whether motor vehicles manufactured for sale in the United States meet the standards set by the Secretary, "[U]pon application of the manufacturer, the Secretary shall test, or require to be tested, . . . the new motor vehicle . . ."; and if such vehicle conforms to the regulations relating to performance and durability, ". . . the Secretary shall issue a certificate of conformity for at least one year." The results of the test determine the certification of any new vehicle sold by a manufacturer which is substantially and materially like the test vehicle. 201

The procedure for certification, set out in the 1966 and 1968 regulations, requires that tests be conducted by the Surgeon General and that pertinent data be submitted by the manufacturer.²⁰² The Surgeon General's performance tests are designed to determine the exhaust emissions of hydrocarbon and carbon monoxide concentrations of a group of test vehicles on what is thought to be an average trip in a metropolitan area—seventeen minutes from a cold start.²⁰³ There are also tests of durability designed to ensure that the performance standards will be met over the reasonable life expectancy of the vehicle.²⁰⁴

If, after reviewing the data submitted by the manufacturer and the data from the Surgeon General's tests, the Secretary believes that the motor vehicle does not conform to the regulations, then prior to denial of a certificate the Secretary must state the grounds for the proposed denial.²⁰⁵ The manufacturer is entitled to a hearing and exercises his right by written request specifying the grounds alleged to be erroneous.²⁰⁶ On the basis of the evidence and arguments presented at the hearing, the Presiding Officer, a designee of the Secretary, makes findings and recommendations to the Secretary, who ultimately decides whether to grant or deny certification.²⁰⁷ There is no provision for court review of the certification in either the Act or the regulations, but presumably a manufacturer could test the decision by manufacturing in violation of the certification decision or by an action of mandamus.

Aware that there is yet no simple exhaust emission testing system

^{200.} Clean Air Act, 42 U.S.C. § 1857f-5(a) (Supp. 1967).

^{201.} Clean Air Act, 42 U.S.C. § 1857f-5(b) (Supp. 1967).

^{202. 45} C.F.R. \$ 85.61 (1968).

^{203. 45} C.F.R. §§ 85.70(b), (c) (1968).

^{204. 45} C.F.R. §§ 85.2(b), 85.87(a), (b) (1968).

^{205. 45} C.F.R. § 85.63(a) (1968).

^{206. 45} C.F.R. § 85.63(d) (1968). A prehearing conference is also authorized if requested or if the Presiding Officer so decides. 45 C.F.R. § 85.66 (1968).

^{207. 45} C.F.R. § 85.68 (1968).

adaptable to large scale inspection of individual vehicles,²⁰⁸ Congress, in the 1967 amendments, authorized the Secretary to make grants to appropriate state air pollution control agencies to develop uniform emission device inspection and emission testing programs.²⁰⁰ Also, the Abatement Branch established a Motor Vehicle Compliance Facility in Detroit to provide data to assist in the formulation of new standards and develop better testing methods.²¹⁰ In the interim it was presumed that since the Secretary has the authority to test vehicles, require manufacturers to submit periodic reports, and deny certification, there is no need for in-plant inspections.²¹¹

Enforcement of the prohibition against the manufacture of non-conforming vehicles is aided by the provision making illegal a manufacturer's refusal to provide required information. Also the removal or making inoperative of any control device prior to its sale and delivery to the ultimate purchaser is made a separate offense.²¹² The Act gives district courts of the United States jurisdiction to enjoin these violations and subject violators to a maximum \$1,000 fine.²¹³

The Air Quality Act of 1967 contained a new provision pertaining to fuel additives. It requires that fuel manufacturers register additives with the Secretary prior to their introduction into interstate commerce. This provision requires disclosure of certain technical information about the additives so that an opportunity for full assessment of the effects on the environment may be made. To be registered the manufacturer must notify the Secretary of the following: (1) "... the manufacturer of any additive contained in the fuel; the range of concentration of such additive, ... and the purpose of each additive; and (2) "... the chemical composition of such additive," if such information is available, "the recommended range of concentration ..., and the recommended purpose of such additives. ... "216 The Secretary is responsible for researching the health effect of the additives and if he

^{208.} U.S. CODE CONG. & AD. NEWS 3613 (1965).

^{209.} Air Quality Act of 1967, § 209.

^{210.} Megonnell & Griswold, Federal Air Pollution Prevention and Abatement Responsibilities and Operations, 16 J. Air Poll. Control Ass'n 526 (1966).

^{211.} Clean Air Act, 42 U.S.C. § 1857f-6 (Supp. 1967).

^{212.} Clean Air Act, 42 U.S.C. § 1857f-4 (Supp. 1967).

^{213.} Clean Air Act, 42 U.S.C. §§ 1857f-3(a), 4 (Supp. 1967).

^{214.} Air Quality Act of 1967, § 210.

^{215.} S. REP. No. 403, 90th Cong., 1st Sess. 35 (1967).

^{216.} Air Quality Act of 1967, § 210(b).

finds that they present a threat to health and welfare, he has the authority to establish standards.²¹⁷

I. Constitutional Questions Under the Federal Abatement Program

Only one case has arisen under the Clean Air Act as amended, and it was dismissed as premature.²¹⁸ Consequently, the constitutional basis of the statute has never been challenged. For the same reason, the statutory language has never been subjected to conflicting constructions which have necessitated judicial interpretation.

The constitutional basis for the abatement provisions of the Clean Air Act is the commerce power of Congress.²¹⁹ The Act distinguishes between the abatement of interstate air pollution (pollution which originates in one state and affects the health or welfare of persons in another state) and the abatement of intrastate air pollution (pollution which affects persons in the state where it originates). In the case of the former, the federal government may actively take steps to secure abatement,²²⁰ but in the case of the latter, the federal government can only act at the request of a state, and even then, its actions are limited to assistance.²²¹

The Commerce Clause as a constitutional basis for federal air pollution control may be sustained on two possible grounds. First, the modern concept of interstate commerce would seem broad enough to

^{217.} S. Rep. No. 403, 90th Cong., 1st Sess. 35 (1967). All information relating to trade secrets obtained by the Secretary in registration of a fuel shall be considered confidential. However, such information shall be available to United States employees and officers concerned with this Act and to authorized committees of Congress. Air Quality Act of 1967, $\S 210(c)$.

^{218.} Bishop Processing Co. v. Gardner, 275 F. Supp. 780 (D. Md. 1967). Abatement proceedings under the Clean Air Act against Bishop had gone through the conference and hearing stages. Bishop then brought a suit for declaratory judgment to challenge the findings and recommendations of the hearing board, the adequacy of the board, the composition of the board, procedural due process, the admissibility of some evidence, and the constitutionality of the Clean Air Act. The district court dismissed the petition saying that Bishop could raise its objections when suit was brought against it by the Attorney General to secure abatement. The court said that the Administrative Procedure Act, 5 U.S.C. §§ 701-706, did not provide for direct court review of the hearing board's findings and recommendations.

^{219.} Edelman, The Law of Federal Air Pollution Control, 16 J. AIR POLL. CONTROL Ass'N 524 (1966); Edelman, Federal Air and Water Pollution: The Application of the Commerce Power to Abate Interstate and Intrastate Pollution, 33 Geo. Wash. L. Rev. 1069-1070 (1965).

^{220.} Clean Air Act, 42 U.S.C. § 1857d(f)(1) (Supp. 1967).

^{221.} Id. at § 1857d(f)(2).

embrace the movement of air and pollution across state lines, whether for profit or not.²²² Since Congress did not attempt to control pollution which does not cross state lines, Congress was well within its powers in enacting the abatement provisions in the Clean Air Act. Moreover, it would appear that the intrastate-interstate distinction was needless. Under the theory of "impact" on interstate commerce,²²³ Congress could well reach intrastate air pollution which affects interstate commerce such as airplane transportation, automobile travel on interstate highways, radio and television transmissions, and crops intended for interstate commerce.

A second possible basis for Congressional control over air pollution is the concept of navigable air space.²²⁴ Under the Commerce Clause, Congress has authority to regulate navigable waterways which are avenues of commerce.²²⁵ By analogy, Congress could control the navigable air space, including discharges of pollution into the air, regardless of whether it crosses state lines. However, the power to regulate the navigable waterways has not been exercised to its fullest extent under the Water Pollution Control Act. In the abatement provisions of the Water Pollution Control Act, pollution in navigable waters which are intrastate can only be abated upon the invitation of the Governor of the state in which the pollution occurs.²²⁶

The jurisdictional requirement for federal action in abatement activities is asserted in the Act as follows: "The pollution of air in any state or states which endangers the health or welfare of any persons, shall be subject to abatement as provided in this section." In the absence of court interpretations as to the meaning of these words used by Congress, Sidney Edelman, Chief of the Environmental Health Branch, Public Health Division, Department of Health, Education, and

^{222.} Legislative Reference Service, Library of Congress, The Constitution of tile United States of America, S. Doc. No. 39, 88th Cong., 1st Sess. 152 (Small ed., 1964) and accompanying footnotes.

^{223.} See, e.g., Wickard v. Filburn, 317 U.S. 111 (1942); NLRB v. Jones and Laughlin Steel, 301 U.S. 1 (1937).

^{224.} Edelman, The Role of the Federal Government in Air Pollution Control, Rutgers Seminar on the Legal Aspects of Air Pollution 39 (1967); Edelman, Federal Air and Water Control: The Application of the Commerce Power to Abate Interstate and Intrastate Pollution, supra note 219, at 1083-87.

^{225.} See Gilman v. Philadelphia, 70 U.S. (3 Wall.) 713 (1966).

^{226. 33} U.S.C. § 466g(c)(1); Edelman, Federal Air and Water Control: The Application of the Commerce Power to Abate Interstate and Intrastate Pollution, supra note 219, at 1073-74.

^{227.} Clean Air Act, 42 U.S.C. § 1857d(a) (1964).

Welfare, offered constructions of these words in order to convey the Department's understanding of the law.²²⁸ Air pollution "endangers" within the meaning of the statute if there is a reasonable apprehension of danger.²²⁹ Actual harm or injury need not occur before action may be taken. "Health" suitable for the purposes intended by Congress may be defined as a condition of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity. Therefore, conditions which infringe on the maximum attainment of the individual's overall well being should be considered detrimental to health and welfare.²³⁰ Congress gave "welfare" a very broad meaning when it directed that all language referring to adverse effects on welfare should include, but not be limited to, injury to agricultural crops and livestock, damage to and deterioration of property, and hazards to transportation.231 This definition is probably broad enough to cover adverse effects on almost everything, including esthetic or amenity considerations.232

The Clean Air Act deals with the problem of determining the individual responsibility of a polluter whose emissions, by themselves, constitute no air pollution problem. The abatement provisions reach discharges which "cause or contribute" to air pollution.²³³ This is sufficient statutory authority to initiate the federal abatement program to secure abatement of each individual polluter whose emissions contribute to such pollution, even though his discharges, by themselves, do not constitute pollution endangering health and welfare.²³⁴

J. The Question of Preemption by the Federal Abatement Program

The question of preemption by the federal abatement provisions requires a different answer (1) for the provisions dealing with interstate and intrastate air pollution, (2) for the provisions concerning the establishment of air quality standards, and (3) for the provisions cov-

^{228.} Edelman, The Law of Federal Air Pollution Control, supra note 219, at 524.

^{229.} Id. Reasonable apprehension of danger is sufficient rather than imininent danger. 230. Id. at 524 and n.14. This definition was adopted by the World Health Organization and had been applied to two abatement actions brought under the Clear Air Act. Id. at

⁵²⁴ and n.15; Megonnell, Developing Abatement Policies Under the Clear Air Act, 16 J. Air Pollution Control Ass'n 255 (1966).

^{231.} Clean Air Act, 42 U.S.C. § 1857h(g) (1964).

^{232.} Edelman, The Law of Federal Air Pollution Control, supra note 219, at 524.

^{233.} Clean Air Act, 42 U.S.C. §§ 1857d(c)(1)(A), 1857d(c)(1)(B) (1964).

^{234.} Edelman, The Law of Federal Air Pollution Control, supra note 219, at 524; Edelman, Federal Air and Water Pollution: The Application of the Commerce Power to Abate Interstate and Intrastate Pollution, supra note 219, at 1082.

ering motor vehicle pollution. With respect to the interstate-intrastate problem, the Clean Air Act explicitly provides that local action to abate air pollution shall not be displaced by the Federal statute "except as otherwise provided."235 In view of the federal enforcement action "otherwise provided," it is clear that Congress did not intend to preempt state and local control of air pollution. The legislative history confirms this conclusion as the House Report on these provisions states that the conference and hearing procedures are intended to encourage and assist States and local communities in their efforts to control air pollution, "not to usurp or preempt their rights, powers, or responsibilities in this field."236 This is consistent with the overriding policy of the Act that "the prevention and control of air pollution at its source is the primary responsibility of the States and local governments.²³⁷ Since there have been no cases decided under the Clean Air Act, the preemption issue concerning abatement authority has not been litigated.²³⁸ However, in view of the express language in the Act and the legislative history, it is clear that the federal provisions not only do not preempt State and local abatement and control responsibilities, but actually encourage them.239

Along with the addition of the air quality control provisions in the 1967 amendments was a provision to assure that states, local, intermunicipal, or interstate agencies may adopt standards and plans to achieve a higher level of ambient air quality than approved by the Secretary under Section 108(c).²⁴⁰ Therefore, there is partial federal preemption in the matter of setting air quality standards—state standards are preempted to the extent they are below the Secretary-approved standards.

The issue of preemption by the federal motor vehicle pollution control program was not settled until the 1967 amendments. However, before the Air Quality Act of 1967, the nature of the federal role in the regulation of motor vehicle air pollution suggested preemption of

^{235.} Clean Air Act, 42 U.S.C. § 1857d(b) (1964).

^{236.} H.R. REP. No. 508, 88th Cong., 1st Sess. (1963).

^{237.} Clean Air Act, 42 U.S.C. § 1857(a)(3) (1964).

^{238.} See Huron Portland Cement Co. v. Detroit, 362 U.S. 440 (1960). The Supreme Court relied on the provisions of the Clean Air Act establishing the policy of state and local responsibility for prevention and control of air pollution in showing that the federal ship inspection laws have not preempted Detroit's Smoke Abatement Code. The Court reasoned that since Congress left the control of air pollution to state and local governments in the Clean Air Act, such local action is not preempted, especially by the federal ship inspection laws which do not overlap in any manner with the scope of the Detroit ordinance.

^{239.} Edelman, The Law of Federal Air Pollution Control, supra note 219, at 523.

^{240.} Air Quality Act of 1967, 108(c).

state and local control at least to some extent. The Act and the regulations issued thereunder applied to all new automobiles manufactured for consumption in the United States²⁴¹ and contemplated a national rather than a state or local solution to the problem of motor vehicle pollution. While cognizant of the basic rights and responsibilities of states for control of air pollution, Congress admitted that the establishment of federal standards applicable to motor vehicle emissions was preferable to regulation by individual states.242 Congress was concerned with two aspects of the motor vehicle pollution problem that distinguished it from other air pollution problems. First, the high mobility of automobiles and the increased travel throughout the United States meant that state regulations could not adequately cope with the problem.243 Second, considering the fact that automobiles are massproduced by a few large manufacturers, the numerous conflicting requirements that might be imposed on the manufacturers in the absence of uniform national regulations could have a chaotic effect.²⁴⁴

The 1967 amendments explicitly preempted state and local regulation of motor vehicle pollution and defined the extent of federal preemption.²⁴⁵ State and local governments cannot set standards for new motor vehicles and they cannot require certification or inspection as conditions precedent to initial retail sale, titling, or registration of such motor vehicles.²⁴⁸ However, Congress authorized the Secretary to waive application of the above preemption provision to "any state which has adopted standards (other than crankcase emissions standards) for the control of emissions from new motor vehicles . . . prior to March 30, 1966" if he finds that such state's standards are higher than the applicable federal standards and if such state standards and accompanying enforcement procedures are consistent with section 202(a) of this Act, including economic practicability and technological feasibility.247 In effect, only California may be permitted to establish (1) more stringent standards, (2) standards applicable to emissions not covered by federal standards, and (3) enforcement procedures which are different, yet consistent, with federal enforcement procedures.248 This waiver pro-

^{241.} Clean Air Act, 42 U.S.C. § 1857f-2(a)(1) (Supp. 1967); 45 C.F.R. § 85 (1966).

^{242.} H.R. REP. No. 899, 89th Cong., 1st Sess. 4 (1963).

^{243.} Id.

^{244.} Id. at 14.

^{245.} Air Quality Act of 1967, § 208.

^{246.} Id. at § 208(a).

^{247.} Id. at § 208(b).

^{248.} H. REP. No. 728, 90th Cong., 1st Sess. 21 (1967).

vision only applies to California, which, according to Congress, was the only state that has "demonstrated compelling and extraordinary circumstances sufficiently different from the Nation as a whole to justify standards on automobile emissions which may, from time to time, need be more stringent than national standards."²⁴⁹

Furthermore, Congress provided that federal preemption in the field of motor vehicle pollution control should not extend to the control of used vehicles or to other aspects of motor vehicle pollution control.²⁵⁰

^{249.} S. REP. No. 403, 90th Cong., 1st Sess. 33 (1967).

^{250.} Section 208(c) provides that state and political subdivisions are not preempted in the right to "control, regulate, or restrict the use, operation, or movement of registered or licensed motor vehicles." According to the Senate Committee of Public Works, this exemption to federal preemption will permit the control of movement of the vehicles as a measure to control vehicle pollution; also it will permit the establishment of emission standards for used vehicles. S. Rep. No. 403, 90th Cong., 1st Sess. 34 (1967).