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Federal Control of Stationary Source Air Pollution

Terry A. Trumbull*

Air pollution, one of the earliest harbingers of the environmental crisis, is still one of the most widespread and obvious indications of environmental abuse. Despite early awareness and definition of the problem progress in control and abatement has been markedly slow. The author traces the history of state and federal government roles in control of stationary source air pollution through the Air Quality Act of 1967 and the Clean Air Amendments of 1970. The standard-setting and enforcement provisions of the federal legislation have gradually become more effective as the delays of previous legislation have been eliminated and the enforcement provisions, increasingly placed in federal hands, have become stronger. Although addressed narrowly to stationary source air pollution, this review of regulation attempts provides a case-study of environmental regulation and of those common problems that beset regulation efforts throughout the environmental field.

Recent years have seen an increasingly important role being taken by the federal government in the control of air pollution. This role has evolved very rapidly since the passage of the Clean Air Act in 1963,¹ the first federal air pollution control legislation. This rapid evolution is to be expected in initial approaches to any problem as large, complex and as little understood as air pollution. For example, the historical pattern has been to take legislative provisions for air pollution from those of water pollution, even though there are a

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¹. Pub. L. No. 88-206, 77 Stat. 392 (1963) (codified at 42 U.S.C. §§ 1857-57 (1964)). This Act was in fact preceded by the Air Pollution Control Act of 1955, ch. 360, 69 Stat. 322. The 1955 Act had, however, placed responsibility for air pollution control exclusively in the hands of the individual states. On the federal level, it provided merely for research and technical assistance to assist in such control.
number of important differences between the two from the standpoint of control. Seen in this context, the break from this historical pattern in the recent Clean Air Amendments of 1970 represents remarkable progress in a very short time span.

Certain basic features of federal legislation have been carried forward in each successive statute since 1963 with relatively little change. These include: (1) standard-setting procedures whereby air quality control regions are designated and ambient air quality standards are set; (2) enforcement procedures, consisting of the conference-public hearing-court action process; and (3) the requirement for close intergovernmental cooperation, but with primary enforcement responsibilities upon the states and local governments. Even more significant than this continuity, however, has been the consistent expansion of federal authority and the shift of responsibilities for control to successively higher levels of government.

I

MAJOR FEDERAL LEGISLATION

Since the passage of the Water Pollution Control Act in 1948, the legal framework for pollution control has been determined increasingly by federal legislation. Federal legislative provisions for standard-setting and enforcement have been developed to deal with water pollution and then adopted almost without change for air pollution. The tendency to think of air and water pollution as very similar problems—and to act upon both with similar approaches to


For a similar analysis of air pollution legislative events prior to 1966, see Ripley, Congress and Clean Air: The Issue of Enforcement, 1963, in Congress and Urban Problems, supra at 224, and J. Sundquist, supra at 322-81. For excellent analysis and summary of the forces which have shaped both air and water pollution legislation—Congress, the Executive Branch, public opinion, interest groups and state and local governments—see J. Davies, The Politics of Pollution 37-146 (1970).

5. While there certainly are similarities, there are significant differences. For example, sources of air pollution are considerably more numerous than water pollution sources and it is much easier to treat polluted discharges of water collectively than it
enforcement—is quite clear from the legislative history of major federal pollution control measures up to 1970.

As shown in Table 1, the first permanent federal air pollution control legislation was passed in 1963, and the enforcement provisions embodied in the Clean Air Act of that year followed the pattern of those already set for water pollution control. The federal government could take the initiative only in cases of interstate air pollution. For intrastate pollution, a request for assistance from the governor was a prerequisite. The enforcement process was initiated by the federal government holding a conference for interested parties within

Table 1

<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Enforcement</th>
<th>Major Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>Air Pollution Control Research &amp; Technical Assistance Act (Pub. L. No. 84-159)</td>
<td>Conference-hearing-trial for interstate air pollution</td>
<td>Research, demonstrations and training</td>
</tr>
<tr>
<td>1963</td>
<td>Clean Air Act (Pub. L. No. 88-206)</td>
<td></td>
<td>Grants to state and local control agencies</td>
</tr>
<tr>
<td>1965</td>
<td>Motor Vehicle Air Pollution Control Act (Pub. L. No. 89-272)</td>
<td>Federal regulation of emissions from new automobiles</td>
<td>Research on motor vehicle and sulfur oxides emissions</td>
</tr>
<tr>
<td>1970</td>
<td>Clean Air Amendments (Pub. L. No. 91-604)</td>
<td>New motor vehicle emission standards, 1975</td>
<td>EPA to set national ambient air quality standards and oversee states' efforts to reach them</td>
</tr>
</tbody>
</table>

EPA performance standards for new sources; national emission standards for hazardous pollutants; expanded powers to enforce compliance; citizen suits

Federal procurement prohibited from convicted polluters

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a. Adapted and updated from J. Davies, supra note 4, at 50.
b. Despite differing titles, all legislation after 1963 constituted amendments to the Clean Air Act.
c. The Motor Vehicle Act was Title II of Pub. L. No. 89-272. Title I consisted of minor amendments to the 1963 act and Title III was the Solid Waste Act.

is for discharges to the air. Several other differences are noted at text accompanying note 47 infra.

7. Id. § 5(f)(2).
the state.\textsuperscript{8} If this conference did not produce results within six months, a public hearing could be convened; and if satisfactory action was still not obtained within another six months, the federal government could take interstate polluters to court.\textsuperscript{9} Intrastate polluters could be sued only with the approval of the governor of the state.\textsuperscript{10} The delays in curbing pollution were so great under this procedure\textsuperscript{11} that mounting public pressure obliged Congress to consider further legislation. Attention in the meantime had been focused on automobile air pollution and Congress passed the Motor Vehicle Air Pollution Control Act in 1965.\textsuperscript{12} Two years later the Air Quality Act was passed with a view to accelerating the control of pollution from stationary sources.\textsuperscript{13}

\textbf{A. The Air Quality Act of 1967}\textsuperscript{14}

A highly complex legislative document, the Air Quality Act of 1967 attacked pollution on many fronts; this Article confines itself to the provisions relating to standard setting and enforcement for the control of pollution from stationary sources. Although the 1970 Amendments simplified and streamlined standard-setting procedures and specified enforcement actions to be taken, the nature of both these processes was shaped in 1967 and the basic procedures were established at that time.

\textbf{1. Standard Setting}

The standard-setting procedures contained in the 1967 Act continued the existing policy of placing direct responsibility for pollution control on the states, with the federal government providing assistance. As set forth in the first section of the Act, the principle underlying this division of responsibilities was the determination by Congress that, "the prevention and control of air pollution at its source is the primary

\begin{itemize}
  \item 8. \textit{Id.} \textsection 5(c)(1).
  \item 9. \textit{Id.} \textsection\textsection 5(d)-(f).
  \item 10. \textit{Id.} \textsection 5(f)(2).
  \item 11. Only one case reached the courts under the Clean Air Act, United States v. Bishop Processing Co., 423 F.2d 469, 1 ERC 1013 (4th Cir. 1970), cert. denied, 398 U.S. 904, 2 ERC 1909 (1970). Basically, the 1963 legislation did little other than provide an enforcement procedure. The only other provisions granted the states funding for two-thirds of the cost of control programs and directed federal agencies to cooperate in controlling air pollution to "the extent practicable." Clean Air Act, Pub. L. No. 88-206, \textsection 7(a), 77 Stat. 399 (1963). These provisions were praiseworthy in 1963, but they did not require the states to do anything to improve air quality.
  \item 13. See \textsc{House Comm. on Interstate and Foreign Commerce, Air Quality Act of 1967}, H.R. \textsc{Rep. No. 728}, 90th \textsc{Cong.}, 1st \textsc{Sess.} 9 (1967).
  \item 14. Despite its title as the Air Quality Act of 1967, this legislation actually constitutes amendments to the Clean Air Act of 1963.
\end{itemize}
responsibility of States and local governments,"\textsuperscript{15} and "that Federal financial assistance and leadership is essential for the development of cooperative Federal, State, regional, and local programs to prevent and control air pollution."\textsuperscript{16}

The process of standard setting was to begin with the federal government designating "air quality control regions."\textsuperscript{17} The regions, which could be in one or more states, were to be based on jurisdictional boundaries, urban-industrial concentrations, and other atmospheric areas necessary to provide adequate implementation of air quality standards.\textsuperscript{18} To the extent feasible, the designation of air quality control regions was to occur within eighteen months after the enactment of the Air Quality Act.

Simultaneously with the designation of air quality control regions, the federal government was required to develop and issue to the states "air quality criteria"\textsuperscript{19} and data on control techniques for particular pollutants. Both the criteria and the data on control techniques were to be announced in the \textit{Federal Register} and to be made available to the general public.\textsuperscript{20}

The federal government, then, was to designate regional air quality regions, to issue criteria, and to recommend control techniques before the states could act. At this point each state included in an air quality control region had 90 days to file a letter of intent, stating that it would set appropriate air quality standards and controls for the pollutants covered by the criteria. After filing this letter, the states had 180 days to adopt the air quality standards applicable to each control region and 360 days to adopt an implementation plan.\textsuperscript{21}

\textsuperscript{16} Id. § 1857(a)(4).
\textsuperscript{18} Id. § 107(a)(2). The Act also authorized the Secretary of HEW, after consultation with state and local authorities, to review such regions as he determined necessary. Id. With the establishment of the Environmental Protection Agency (EPA) in December, 1970, these and other responsibilities under federal air pollution control legislation were transferred to the Administrator of the EPA. Reorganization Plan No. 3 of 1970, § 2(a)(3), 3 C.F.R. 1072 (1970).
\textsuperscript{19} Air quality criteria represent a compilation of the latest available scientific knowledge on the effects on public health and welfare of different levels of air pollutants (or combinations thereof). The criteria were designed to assist state and local governments in setting their own air quality standards.
\textsuperscript{21} Air Quality Act of 1967, Pub. L. No. 90-148, § 108(c)(1), 81 Stat. 492. It is important to recognize the distinction between two types of standards, one of which specifies air pollution control objectives, the other prescribing what polluters must do. The first, \textit{air quality standards}, are specific quality levels of ambient air (e.g., no more than $X$ micrograms per cubic meter of particulate matter over any 24
The standards were to become effective when approved by the federal government.

If a state failed to file a letter of intent or establish air quality standards, or if the state’s standards were not approved by the federal government, the latter could promulgate its own standards for the region. In this case, the state was allowed an additional six months to adopt acceptable standards. If it failed to do so, federal government standards became effective for the region. States could then appeal standards set by the federal government to a hearing board if they so desired. The delays possible in these procedures are obvious; the desired acceleration of pollution control beyond that allowed by the 1963 Act did not materialize.

Another major weakness of the Clean Air Act of 1963 had been its failure to require the states to establish ambient air quality standards or a means of achieving them. The Air Quality Act of 1967 attempted to remedy this deficiency, but failed. This failure was primarily the fault of the federal government, which did not issue air quality criteria, recommend control techniques, or designate air quality regions. Since there was no statutory deadline for completion of any of these activities in the 1967 legislation, the federal government apparently felt no urgency to do so. These failures were a major factor in the passage of the Clean Air Amendments of 1970, which include very precise statutory deadlines to avoid similar failures.

2. Enforcement Procedures

The Air Quality Act of 1967 set forth a series of steps to be followed in the designation of air quality control regions, the establishment of air quality standards and an implementation plan for those areas. These steps covered both interstate and intrastate pollution. In contrast, federal enforcement action under the Act was limited to interstate air pollution, except when federal action was requested by the governor of the state involved. Accordingly, federal initiative

hour period) which are deemed acceptable for any given air quality control region. The second, emission standards, prescribe the nature and quantity of a pollutant to be allowed from any given source (e.g., no industrial plant may emit more than Y micrograms per cubic meter over any 24 hour period).

22. Id. § 108(c)(2). The Act also stipulated, however, that the federal government could take action only “after reasonable notice and a conference of representatives of appropriate Federal departments and agencies, interstate agencies, states, municipalities, and industries involved.” Id.

23. Id.

24. Id. § 108(c)(3).

25. NATURAL RESOURCES DEFENSE COUNCIL, ACTION FOR CLEAN AIR 5 (1971).

26. The focus of federal enforcement on interstate pollution was first set forth in the Water Pollution Control Act of 1948. Under that Act, the Attorney General was
in enforcement proceedings was possible only where pollution originated in one state but endangered the health or welfare of persons in another. Thus, the major obstacle to federal enforcement under the 1963 Clean Air Act—the requirement that consent of the states be obtained—was retained in the 1967 legislation. Even when requested to act in an intrastate matter, the federal government had the right to decide whether or not a given case was of sufficient importance to warrant federal initiative.

The basic pattern for federal enforcement was also retained from the 1963 Clean Air Act:

First, a conference is held under the aegis of the Federal pollution control agency. The conference established a schedule for cleaning up the pollution which allows at least six months for action to be taken. If at the end of six months sufficient progress has not been made, the Secretary may call a public hearing. There is a mandatory six-month delay after the public hearing and then, if compliance is still not satisfactory, the Secretary may request the Attorney General to bring suit against the polluters. However, many of the lengthy and mandatory enforcement delays were eliminated with the Air Quality Act.

Under the 1967 legislation, the federal government could eliminate both the conference and the public hearing in bringing enforcement action. Violators had to be notified 180 days before legal action was taken, but after such notice was given and the required time had elapsed, the Attorney General could be requested to bring suit against polluters. Federal action, however, was dependent under the Air Quality Act upon establishment of air quality standards. Because air quality standards were slow to be established under the 1967 Act, this new, streamlined enforcement procedure was not applied.

permitted to bring an enforcement suit only if the pollution was interstate and if the consent of state authorities was obtained. Water Pollution Control Act of 1948, ch. 758, §§ 2(d)(1), (4), 62 Stat. 1156. The first federal legislation which allowed interstate pollution suits without consent of local officials was a 1961 amendment to the Water Pollution Control Act, Pub. L. No. 87-88, § 7(e), 75 Stat. 209 (codified at 33 U.S.C. § 1160(g) (1970)), whose language was copied almost exactly in the 1963 air pollution law. Clean Air Act, Pub. L. No. 88-206, § 5(f), 77 Stat. 392, 397 (1963). This language was continued in the Air Quality Act of 1967. Pub. L. No. 90-148, § 108(g), 81 Stat. 496 (codified at 42 U.S.C. § 1857d(g) (Supp. V, 1970)).

27. Under the Air Quality Act, however, there was one significant exception to the interstate-intrastate differentiation. The Secretary of HEW was authorized to seek immediate federal court action in situations where pollution "is presenting an imminent and substantial endangerment to the health of persons" and state or local authorities had not acted to abate it. Air Quality Act of 1967, Pub. L. No. 90-148, § 108(k), 81 Stat. 497.

28. J. DAVIES, supra note 4, at 180.

29. See text accompanying notes 19-24 supra.

30. There was some application for water pollution control. Under parallel provisions of the 1965 Water Quality Act, Pub. L. No. 89-234, 79 Stat. 903 (codified at
eral air pollution enforcement experience was limited in any event, but such as there was took place under the older 1963 procedure. Consequently, it is important to examine the conference-public hearing-court action process in some detail.81

a. Conference

If the federal government found that pollution from one state was endangering the health or welfare of people in another, it could call an abatement conference of the pollution control agencies of all affected states and municipalities.82 The conference, however, was legally a somewhat peculiar proceeding:

Although it is the first step in a legally defined process leading eventually to court action, the conference itself is not run under court-type rules and it is not considered to be an adversary proceeding. The individual polluters are not parties to the conference, and in water pollution conferences they do not testify unless invited by the state control agencies. In 1967 the air pollution enforcement procedure was changed to require that all “interested parties” receive notice of the conference and an opportunity to present their views. The conference has been used as an informal meeting between the Federal control agency and its state and local counterparts for the purpose of mutually agreeing on a schedule of remedial measures, and also as a vehicle for publicizing the existence of pollution in a particular area.83

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81. It has been suggested that there are some advantages to the older picture.

The older conference-public hearing procedure has the advantage of being able to cover a large geographic area and a large number of polluters in a single action. An action under the new procedure, because it leads directly to court action, usually can only be applied to one pollution source at a time. Thus the older procedure may still be used in the future.

J. Davies, supra note 4, at 181.


33. J. Davies, supra note 4, at 181. Likewise, J. Esposito observes:

A conference resembles a town meeting presided over by a representative of the Secretary. Although official participation is limited to state, local, and federal officers, interested citizens (including the offenders) may—indeed, are encouraged to—testify. The proceeding is nonadversary, without administration of oaths or extensive cross examination. (Only official participants are allowed to ask questions.) The aim is public consultation, not prosecution.

Following the conference, the federal government was required to prepare and forward to all air pollution agencies attending the conference a summary of the discussions, including: first, the occurrence of air pollution subject to abatement under the Act; second, the adequacy of abatement measures taken; and third, the nature of delays, if any, being encountered in abating pollution. If the federal government had reason to believe that effective progress was not being made, it had to recommend “the necessary remedial action” to the appropriate air pollution control agency. From the date that such recommendations were made a waiting period of at least six months was required.\(^{34}\)

b. **Public Hearing**

If remedial action had not been taken at the conclusion of this period the federal government was required to call a public hearing. The public hearing was a more formal process than the initial conference:

It takes place before a hearing board which consists of five or more persons appointed by the [HEW] Secretary. Each of the states involved in the case can appoint one member of the board, and a majority of the members of the board must be persons who are not employees of the Federal department which initiated the enforcement action. The alleged polluters—whether an industry, individual, or governmental unit—are made direct participants in the hearing. Findings are made by the hearing board on the evidence presented, and it recommends to the Secretary the measures which must be taken to abate the pollution. The Secretary, if he approves the hearing board's findings and recommendations, sends them to the polluters and the state agencies along with a notice specifying a schedule for the accomplishment of the abatement measures.\(^{35}\)

In short, the hearing duplicated much of the conference, but in an adversary setting. Once again, violators were given “a reasonable time” of not less than six months to comply with the recommended pollution abatement.\(^{38}\)

c. **Court Action**

If the polluter was still recalcitrant after the additional allotted time, the federal government could ask the Attorney General to bring

suit in the appropriate U.S. District Court. The next step was not clear, both because of limited experience in filing pollution control suits in Federal court and because of the legal uncertainties attached to the final enforcement stage. As of 1970, when new enforcement procedures were provided under the Amendments to the Clean Air Act, only one case of water pollution and one of air pollution had been brought to court.\textsuperscript{37} Before 1970, enforcement suits rarely reached the courts because federal officials viewed them as publicity tools rather than as effective enforcement techniques.\textsuperscript{38} This view was reinforced by the lack of ambient air quality standards which might indicate when health or welfare were being endangered.

Once at the court action stage, the situation was equally uncertain. The 1967 Air Quality Act directed the court to receive in evidence (1) "a transcript of the proceedings before the board," (2) "a copy of the board's recommendations," and (3) "such further evidence as the court in its discretion deems proper."\textsuperscript{39} But the burden of proof remained unclear. For, as pointed out in a recent report, the Act also stated that:

The court must give "due consideration to the practicability of complying with such standards as may be applicable and to the physical and economic feasibility of securing abatement of any pollution proved." The lawyers for the National Coal Policy Conference interpret that to mean a \textit{de novo} trial . . . with the burden of proof on the Government. In any event, the court has jurisdiction to enter such judgments and orders "as the public interest and the equities of the case may require." This means that the judge may order abatement by a certain date, close down the plant, or do nothing at all.\textsuperscript{40}

\textsuperscript{37} The water pollution case was brought against the city of St. Joseph, Missouri. The one air pollution case has been summarized as follows by the President's Council on Environmental Quality:

The first air pollution enforcement action was instituted in 1965 against a chicken rendering plant in Bishop, Md. A conference was held in 1965 and a public hearing in 1967; a suit was begun in the Federal district court in 1969, and an appeal finally made to the U.S. Supreme Court. The plant was not shut down until the Supreme Court refused to hear the appeal in May 1970—5 years after the action started. No other enforcement action has proceeded beyond the conference stage.

The Council added:

No enforcement has yet taken place under the 1967 act, since the standards, for the most part, have not yet been adopted nor implementation plans approved. The President has submitted comprehensive proposals to the Congress to strengthen enforcement powers.


\textsuperscript{38} Stein, \textit{Regulatory Aspects of Federal Water Pollution Control}, 45 \textit{DENVER L.J.} 267, 276 (1968).


\textsuperscript{40} J. \textsc{Esposito}, \textit{supra} note 33, at 114.
The enforcement provisions in the 1963 and 1967 legislation actually were intended to make federal control of air pollution sources difficult. The theory was that the conference-hearing procedure or the 180 day notice in the 1967 law would make state officials aware of the problem and induce them to control the pollution. To be sure, there are more effective ways that this could be done. The conference and hearing requirements, with their lengthy waiting periods, are unnecessary. While they may persuade state officials to initiate action or polluters to eliminate their offensive conduct, largely through the attendant publicity, there is no reason to require the conference-hearing procedure in all air pollution cases. If adverse publicity is not going to induce a polluter to stop, then little is gained by delays of six to twelve months.

3. Performance under the Air Quality Act

Although viewed at the time of its passage as a significant legislative achievement, pollution control performance under the Act was a disappointment. Failure of the federal government to issue air quality criteria, provide data on control techniques, or designate air quality regions was inexcusable in light of the congressional mandate in 1967. This action had a very stifling effect on state air pollution control programs. States were hesitant to set up their own control programs since they might be inconsistent with the imminent federal guidelines. However, if they waited for the federal government, then they would have no control program. Most states opted to keep the program they had in 1967. As a consequence, federal inaction cost us three years that might have been used to control air pollution.

Between 1967 and 1970, public pressure mounted steadily on the federal government to control air pollution, and there was widespread feeling in both Congress and the executive branch that existing measures were inadequate. Many legislative proposals were introduced during the 91st Congress to improve or extend air pollution control, and congressional discontent was voiced by Senator Jennings Randolph, Chairman of the Senate Committee on Public Works, during the March 1970 air pollution hearings:

Mr. Chairman, I am not a carping critic, but I do want to say that I am disappointed to note the hesitant manner in which the Air Quality Act of 1967 has been implemented. The administration

42. For example, 30 days could be given to the state control agency, rather than a half year or more.
has moved neither far enough nor fast enough in taking the steps toward establishing controls over air pollution.

The Department of Health, Education, and Welfare originally estimated that it would have designated 57 air quality control regions by April of this year. That deadline was later postponed to December of 1970.

At this time, however, fewer than half the designations—25 on January 1, I believe—have been made.

I think it is important, Mr. Chairman, for me to state, as chairman of the Public Works Committee, that there seems to have been too little urgency in publishing the criteria and technology available for achieving the objectives of the 1967 act.

Since these are to be the foundations on which the standards for control of individual pollutants are set and accomplished, the air pollution control program is in serious danger of being shortchanged.

Prior to yesterday,44 we had knowledge of criteria published for only two pollutants. Then, when the hearings opened yesterday we received criteria on three more pollutants and information on four control technologies.45

Senator Randolph blamed the federal government for a general lack of progress, and especially for failure to designate air quality control regions and publish air quality control criteria.

Yet much of the blame lay elsewhere. Many administrative problems were still unresolved at the state level. State enforcement of air pollution control was lagging far behind that of water pollution. Only ten state air quality standards had been approved, and no state implementation plans had been approved at all.46 Thus, there was no basis for enforcing standards since state enforcement had to await federal approval of implementation plans. This situation was partly the result of interlocking procedures laid down in the 1967 Air Quality Act and the consequent requirement for close intergovernmental cooperation.

The Council on Environmental Quality also stressed that, despite the apparent similarities between air and water pollution, the methods of control and the implementing institutions for each were distinctly different:

44. March 16, 1970.
46. Interview with Jeffrey H. Schwartz, Air Quality and Radiation Division, Office of General Counsel, Environmental Protection Agency, in Washington, D.C., April 18, 1972. See also 1970 ENVIRONMENTAL QUALITY REPORT, supra note 37, at 86.
First, there is no available technology for a number of air pollutants, although most forms of industrial water pollution are amenable to control. Second, state water pollution control agencies have existed for many years in the United States and have developed capabilities, although often limited. Until enactment of the Air Quality Act of 1967, air pollution control was largely conducted by local agencies. Few states had adequate manpower and resources. Finally, the Air Quality Act of 1967 is no longer an adequate tool to cope with current pollution problems. Procedures for development and implementation of air quality standards are too slow and place an inordinate burden on both the states and the Federal Government.47

Finally, the Council noted that existing procedures under the Air Quality Act were inadequate:

[T]he Federal Government has no jurisdiction if the pollution from one state is not endangering health and welfare in another state, unless the governor of the state in which the pollution occurs requests help. The current conference-hearing procedure is unduly cumbersome and time consuming. The only court action that can be requested by the government against a polluter is a cease-and-desist order, and the only available remedy in the case on non-compliance is to hold the polluter in contempt of court. The current act does not provide for fines to compel compliance.48

The need for new legislation was also emphasized by Administration spokesmen that fall, notably by William D. Ruckelshaus, then the nominee to head the Environmental Protection Agency [EPA].49

A compromise over Senate and House versions of new air pollution control legislation was soon reached and on December 31, 1970, the President signed into law the Clean Air Amendments of 1970.50 The Amendments were both tough and far-reaching. While it may be still too soon to evaluate the effectiveness of the new legislation in practice,51 it is certain that the 1970 legislation established the basic

47. 1970 ENVIRONMENTAL QUALITY REPORT, supra note 37, at 86.
48. Id.
49. On December 2, 1970, Mr. Ruckelshaus was confirmed as Administrator of EPA. This agency was given comprehensive environmental control responsibilities and encompassed 15 units from other federal agencies. It included all existing agencies and authority at the federal level for air pollution control, notably the National Air Pollution Control Administration.
51. Although the states have now submitted their plans, there are several analytical problems which preclude generalized comment at this time. The first is the sheer size of the analytical effort; there are 55 plans (including plans from territories and the District of Columbia) and each is 300 pages in length or longer—New York's is over two feet high. A second problem is the continuing change in the status of the plans. Many states have submitted plans which contain inadequate regulatory
framework for pollution control in this country for at least the next five to ten years.

B. The Clean Air Amendments of 1970

The 1970 Amendments, which included the strongest air pollution control legislation ever passed by Congress, made several very significant changes in the Clean Air Act. While the most important sections of the Amendments dealt with national ambient air standards and the states’ implementation of these standards, the following discussion will outline other significant sections, such as those dealing with performance standards for new sources, national emission standards for hazardous pollutants, and emergency powers granted to the Administrator of the Environmental Protection Agency, the public official now responsible for administering federal air pollution control legislation.

1. National Ambient Air Quality Standards

a. Standard Setting

Perhaps the most significant and controversial change directed by the 1970 Amendments was the switch from ambient air quality standards established by the states to national ambient air quality standards. These national ambient air quality standards, to be determined by the Administrator of EPA (hereinafter Administrator) consist of both primary and secondary standards. Primary standards are those standards necessary to protect public health, while secondary standards are standards that protect the public welfare from adverse air pollution effects.

For each air pollutant there was to be both a primary and a secondary standard.

National ambient air quality standards are established through a relatively simple process. The Administrator has only to issue proposed national primary and secondary standards for each pollutant,
along with appropriate air quality criteria. Interested persons are allowed 90 days to submit their comments and then the Administrator promulgates the final primary and secondary standards. For the few pollutants (sulfur oxides, particulates, carbon monoxide, hydrocarbons, and photochemical oxidants) for which air quality criteria had already been published, the Administrator was given 30 days to develop proposed standards, followed by the normal 90-day comment period. On April 30, 1971, final ambient air quality standards were issued for these five pollutants after receipt of over 300 comments.

The speed with which these standards were finalized is indicative of the improvement in the standard-setting process resulting from the 1970 Amendments. The new provisions, which removed public hearings, eliminated at least 180 days and, in some cases, as much as 22 months from previous procedures.

b. Implementation of Standards

In contrast to the situation before 1970, the 1970 Amendments enumerate rather specifically what the states must do to insure that national ambient air quality standards are met. Up to 1970 the fed-

56. See note 19 supra.
57. In addition, final primary and secondary standards have been promulgated for nitrogen dioxide. 42 C.F.R. § 410.11 (1971).
58. 2 ENV. RPR.—CURR. DEV. 3 (1971).

The provisions for judicial review of actions by the Administrator set forth in section 307 of the Amendments [42 U.S.C. § 1857h-5(b)(1) (1970)] serve to ensure “prompt and uniform determination on the validity of the standards.” Kennecott Copper Corp. v. EPA, — F.2d —, 3 ERC 1682, 1684 n.15 (D.C. Cir. 1972). The section provides that petitions for review of promulgation of national ambient air quality standards, stationary source standards, and hazardous pollutant emission standards must be filed in the Court of Appeals for the District of Columbia Circuit, while petitions for review of approval or promulgation of state implementation plans shall be filed with the court of appeal for the “appropriate circuit.” 42 U.S.C. § 1857h-5(b)(1) (1970). Moreover, unless the petition for review is “based solely on grounds arising” thereafter, it must be filed within 30 days after the Administrator's action complained of. Id. A companion provision prohibits judicial review during an enforcement proceeding of any issue which could have been litigated before the courts under the foregoing provisions.

In the Kennecott Copper case the petitioner challenged EPA's secondary standards for sulfur oxides. The District of Columbia Circuit held that section 307's judicial review scheme made the court a “partner” with EPA in the informal and expeditious rule-making contemplated by the 1970 Amendments. — F.2d at —, 3 ERC at 1684. As a partner, the court found an inherent requirement that it “be given sufficient indication of the basis on which the Administrator reached the [standard] so that we may consider whether it embodies an abuse of discretion or error of law.” Id. at —, 3 ERC at 1684. However, recognizing the congressional mandate for prompt standard setting, the court indicated that the Administrator would have broad discretion to consider new material, unilaterally revise the standard, and continue the review and adoption of state implementation plans. Id. at —, 3 ERC at 1685.

The pitfalls of section 307 have also recently been illuminated by Getty Oil Co. v. Ruckelshaus, — F.2d —, 4 ERC 1567 (3d Cir. 1972). See note 94 infra.
eral government did little to guide or control the way in which states chose to implement their standards. To satisfy federal requirements previously, a state needed only to submit a plan which was consistent with federal air quality criteria and control techniques, and to provide for state enforcement to assure achievement of air quality standards within a reasonable time. These requirements were substantially less specific than those included in the 1970 Amendments.

Under the 1970 Amendments the states are required to meet a number of specific requirements. After the Administrator has issued national ambient air quality standards for a particular pollutant, the states have to provide a plan showing how the state will meet the standards. The states are allowed nine months to submit these implementation plans after national ambient air quality standards have been issued, although the Administrator may allow a state up to an extra eighteen months in which to submit an implementation plan for secondary standards.

State implementation plans are reviewed by the Administrator, who must approve or disapprove them within four months. The Administrator must be satisfied that the state's plan meets eight conditions:

1. The plan must provide for attainment of the national primary standards as soon as possible, but no longer than within three years, and national secondary standards must be achieved within a reasonable time;
2. The plan must include emission limitations, schedules, and timetables for compliance with these restrictions. While emission limitations are expected to be the primary air pollution control technique, the plan must include other measures necessary for achieving the standards, particularly land use and transportation controls;
3. The plan must provide for monitoring ambient air quality, as well as compilation and analysis of the resulting data. This data must be made available to the Administrator;

60. Id. § 1857c-5(b). Thirteen states have been granted this extension. ENVIRONMENTAL QUALITY 1972: THE THIRD ANNUAL REPORT OF THE COUNCIL ON ENVIRONMENTAL QUALITY 111 (1972) [hereinafter cited as 1972 ENVIRONMENTAL QUALITY REPORT].
62. Id.
63. The Administrator of EPA may in certain circumstances permit a two year extension of the date for meeting primary standards. Id. § 1857c-5(e). Eighteen states encompassing urban areas with severe automobile air pollution problems were granted two-year extensions. 1972 ENVIRONMENTAL QUALITY REPORT, supra note 60, at 111.
64. For a summary of the land use and transportation controls proposed by the states, see ENV. RPRTR.—STATE AIR LAWS 221:0105 (1972).
4. The plan must include a procedure for review of the location of new sources;
5. The plan must provide for cooperation between governmental units to insure that air pollution from one air quality region does not impair air quality in another region;
6. The plan must (i) provide assurances that the state will have adequate personnel, funding, and authority to carry out its implementation plan, (ii) require installation of monitoring equipment on air pollution sources, (iii) provide for periodic reports on individual emissions, (iv) provide for availability to the public of records correlating emission reports and limitations, and (v) provide for authority to restrain immediately pollution which is an imminent danger to public health;
7. The plan must provide for periodic testing of motor vehicles to enforce compliance with emission standards; and
8. The plan must provide for revision of the implementation plan if the national ambient air quality standards change or if the Administrator determines that the plan cannot achieve the national standards.

The Amendments allow the Administrator to establish an implementation plan if he does not approve a plan or if no plan has been submitted by a state. If the Administrator does not approve some part of an implementation plan, the state has 60 days in which to make the appropriate revision. If the requested revision has not been made or no plan has been submitted, then the Administrator must promulgate an implementation plan which becomes effective six months after the plan was to be submitted if the state has not submitted an acceptable plan in the interim.65

In Sierra Club v. Ruckelshaus65a a federal district court held that the Administrator could not approve state implementation plans that would permit significant deterioration of existing air quality—even though the national ambient air quality standards might not be violated. The decision, if upheld on appeal, would require the Administrator to revise the EPA's regulations respecting state plan approval and to advise the states of additional actions necessary to preserve existing air quality.65b

65a. 4 ERC 1205 (D.D.C. 1972).
65b. See 1972 ENVIRONMENTAL QUALITY REPORT, supra note 60, at 111. Another environmentalist challenge to EPA's approval of state implementation plans has been made by the Natural Resources Defense Council. NRDC filed suit in the District of Columbia Circuit charging that state plans approved by EPA are deficient in not taking account of probable future increases in air pollution due to growth and in not imposing transportation controls. 3 ENV. RPT.—CURR. DEV. 182 (1972). See also Natural Resources Defense Council v. EPA, — F.2d —, 4 ERC 1506 (1st Cir. 1972)
Under rather limited circumstances, the Administrator may grant a one-year compliance postponement to a particular pollution source if requested to do so by the governor of the state in which the source is located. This provision does not go into effect until the Administrator approves or promulgates a plan and consequently there have been no requests for the postponement. It is unlikely that a request would be granted before a plan is to take effect, which might be as late as 1975 or 1977.

c. **Inspections, Monitoring, and Entry**

Owners and operators of any emission source may be required by the Administrator to install and maintain monitoring equipment as well as sample their emissions and make information on them available. In addition, owners and operators must allow representatives of the Administrator access to monitoring equipment and emission records at all times. Any information or records required must be made available to the public, unless the Administrator agrees with the owner or operator that a trade secret is involved. This requirement appears to make available to the public records which could be of considerable value in the prosecution of private pollution cases.

d. **Air Quality Control Regions**

Under the law up to 1970, the first step towards air pollution control was the designation of air quality regions. The 1970 Amendments greatly accelerated the completion of designation of air quality control regions so that all regions in the country had been designated by March 31, 1971.

The designation of air quality control regions was completed in two steps. First, previously designated regions were retained without change. Second, all portions of a state which were not part of a previously designated region were lumped together as one region, unless the Administrator approved a breakdown by the state government of remaining areas into two or more regions. These two steps were

(Granting NRDC motion to transfer a parallel suit to D.C. Circuit, the "most appropriate court" to hear the case).

66. Id. § 1857c-5(f). The Administrator must find that the source has made a good faith attempt at compliance, is unable to comply because the necessary technology is not available, will use an alternative means of reducing its pollution, and is necessary to the national security or the public health or welfare.
67. Id. § 1857c-9(a)(1).
68. Id. § 1857c-9(a)(2).
69. Id. § 1857c-9(c).
70. Id. § 1857c-2(b)(1).
71. Id. § 1857c-2(b)(2).
subject to the Administrator's right to change the areas covered by a region, provided he did so by March 31, 1971.\textsuperscript{72}

e. Performance Standards for New Sources

Under this section,\textsuperscript{73} the federal government regulates "standards of performance" for all new stationary sources of air pollution. "Standard of performance" is defined to mean a standard "which reflects the degree of emission limitation achievable through the application of the best system of emission reduction" which has been demonstrated.\textsuperscript{74} This in effect establishes a national standard for all new sources that does not take into account differences in local ambient air quality or other factors.

In order to promulgate performance standards for new sources, the Administrator must declare that a particular category of air pollution sources endangers the public health or welfare.\textsuperscript{75} Within 120 days after such a declaration, the Administrator must propose regulations establishing federal standards of performance within the category.\textsuperscript{76} The public is allowed to comment on the regulations for 90 days, after which the Administrator shall promulgate the final regulations.\textsuperscript{77}

Each state may develop a plan implementing the performance standards for new sources. If the plan is approved by the Administrator, he may delegate to that state the authority that he has to implement and enforce the standards. If a state does not submit an implementation plan for a category upon which final regulations have been issued, then the Administrator may make an implementation plan for the state in the same way that he may prepare implementation plans.

\begin{itemize}
\item \textsuperscript{72} Id. § 1857c-2(c).
\item \textsuperscript{73} Id. § 1857c-6.
\item \textsuperscript{74} Id. § 1857c-6(a)(1) [emphasis added].
\item \textsuperscript{75} Id. § 1857c-6(b)(1)(A).
\item \textsuperscript{76} Id. § 1857c-6(b)(1)(B).
\item \textsuperscript{77} On December 23, 1971, final new source performance standards were issued for fossil-fueled steam generators, sulfuric and nitric acid plants, Portland cement plants, and large incinerators. 36 Fed. Reg. 24876 (1971). EPA also was expected to propose stationary source standards for seven other industrial categories by about October 1, 1972. The standards will apply to petroleum refineries, sewage sludge incinerators, dead animal rendering plants, iron and steel mills, asphalt and concrete plants, lead smelters, and brass and bronze smelters. 3 ENV. RPTR.--CRR. DEV. 503 (1972).
\item EPA has recognized that during plant startup, shutdown, or equipment malfunction, the standards may unavoidably be temporarily exceeded. To meet this problem the agency has proposed amendments to the standards requiring notification by the plant operator in the event of such occurrences, and providing for review by the Administrator to determine whether the emissions were in fact unavoidable. Unavoidable emissions would not constitute a violation of the standards. 37 Fed. Reg. 17214 (1972).
\end{itemize}
for national ambient air quality standards.\textsuperscript{78}

The new source standards are a logical way to insure that new sources of pollution minimize their discharges. There are two problems with the approach. First, new sources of pollution are required to emit less than existing sources and thus pay more for pollution control than they might if they were treated like other sources. Second, in some regions there will be no benefit to health or welfare from application of the best available control technology. In these areas which already meet ambient air quality standards, the federal government should not mandate new source control technology; instead, the state or locality should make this decision.

\textbf{f. \textit{National Emission Standards for Hazardous Air Pollutants}}

National emission standards are required to be established for air pollutants that are hazardous because of their potential effect upon public health and yet for which there is no applicable ambient air quality standard. Under the 1970 Amendments, the Administrator was required to publish a list of hazardous pollutants by March 30, 1971.\textsuperscript{79} Six months after the list was published, proposed national emission standards were to be issued.\textsuperscript{80} A public hearing was to be held within 30 days of the issuance of national emission standards, after which the Administrator was required to promulgate final national emission standards within six months after publication of such standards.\textsuperscript{81} Standards for hazardous pollutants are to be set at a level which provides an ample margin of safety to protect public health.

After the final regulations are published, there is a 90-day grace period after which no one may emit in violation of the standard unless he receives permission from the Administrator.\textsuperscript{82} This waiver can be granted for up to two years, but only if all steps necessary to installation of control technology are being taken and public health will not be affected.\textsuperscript{83} No new source, including modification of an existing source, may be constructed which will discharge a hazardous air pollutant unless the Administrator certifies that the source will not vio-

\textsuperscript{78} 42 U.S.C. § 1857c-6(d) (1970).
\textsuperscript{79} \textit{Id.} § 1857c-7(b)(1)(A). On March 30, 1971, the Administrator declared asbestos, mercury, and beryllium to be hazardous air pollutants. \textit{1 Env. Rptr.—Curr. Dev.} 1322 (1971).
\textsuperscript{81} Although final standards for these pollutants were required by June 5, 1972, the EPA does not expect them to be promulgated until early 1973. \textit{1972 Environmental Quality Report, supra} note 60, at 114.
\textsuperscript{83} \textit{Id.} § 1857c-7(c)(1)(B)(ii).
late the standard. If the Administrator feels that a state has developed an adequate plan for enforcing emission standards for hazardous pollutants, then he may delegate his authority to control sources of such pollution in that state.

2. Enforcement

a. Insuring Compliance

The 1970 Amendments markedly expand the scope and potential effectiveness of federal enforcement. Before 1970, the federal government could bring suit only if (1) the ambient air quality fell below the applicable air quality standards; (2) the lowered air quality resulted from failure of a state to take reasonable action to enforce the standards; and (3) the level of pollution was endangering the health or welfare of persons in a state other than that in which the discharge originated. In these circumstances, the federal government could go to court to secure abatement. If the pollution was endangering only the health and welfare of persons in the state in which the pollution originated, then the governor of the state had to request aid in enforcement before the federal government could intervene. Because of the weakness of these enforcement provisions, the burden of insuring compliance was on the states, with the federal government offering encouragement.

The 1970 Amendments provide significantly greater enforcement power than existed under the Clean Air Act because the Administrator is permitted to enforce compliance with any aspect of an implementation plan. To do this, the Administrator notifies a discharger of his violation of a plan; and if 30 days later there is still a violation, then the Administrator can either issue an order requiring compliance or initiate a civil suit against the violator. If civil action is initiated, a court may grant an injunction or any other relief it considers appropriate. If a compliance order is violated, then criminal penalties of up to $25,000 per day or one year imprisonment are available.

84. Id. § 1857c-7(c)(1)(A).
85. Id. § 1857c-7(d)(1).
87. Id. § 1857d(c)(4)(ii).
88. 42 U.S.C. § 1857c-8(a)(1) (1970). In addition, if the Administrator finds such widespread violations as to indicate a state's failure to enforce its plan effectively, he may so notify the state and 30 days thereafter initiate a "period of federally assumed enforcement," [id. § 1857c-8(a)(2)] until satisfied that the state is ready to enforce the plan. During such a period the Administrator may issue compliance orders or bring civil suits against violators without the requirement of separate 30-day notice to each violator. See 42 U.S.C. § 1857c-8(b)(2) (Supp. I, 1971).
89. Id. § 1857c-8(b).
90. Id. § 1857c-8(c).
Upon a second conviction, the possible fine and period of imprisonment double.91 These enforcement provisions apply to national ambient air standards, new source performance standards, hazardous pollutant standards, and the inspections, monitoring and entry requirements.92

While the old conference-enforcement procedure is retained under the new provisions, it is limited to enforcement situations where there is no applicable national primary or secondary ambient air quality standard.93 This limitation reduces the conference procedure to, at best, a supplementary role in the federal enforcement scheme.

Although the 1970 Amendments continue to place the primary burden of air pollution control enforcement upon the states, the new enforcement provisions are certainly an important improvement over the old provisions.94 However, effective regulations are of little use if there is not sufficient manpower to enforce them; indeed, manpower will be the primary determinant of the effectiveness of federal enforcement. As noted below,95 citizen suits under section 304 of the Clean Air Amendments can do much to insure adequate enforcement.

b. Emergency Powers

The federal government's emergency powers remain essentially unchanged by the 1970 Amendments. The Administrator may go to court to enjoin a polluter if there is "an imminent and substantial endangerment to the health of persons" and state or local authorities have not acted to abate the source.96 Under the 1967 Air Quality

91. Id.
92. Id. § 1857c-8(b).
93. Id. § 1857d(b)(4).
94. EPA issued its first violation notice and compliance order in spring 1972 to the Delmarva Power and Light Co., of Delaware. Delmarva was charged with violation of the sulfur dioxide limits in Delaware's implementation plan. EPA acted after a state court temporarily enjoined the state's enforcement of its standard. 1972 ENVIRONMENTAL QUALITY REPORT, supra note 60, at 114-15.

After EPA's order had been issued, Getty Oil Co., a supplier of high-sulfur fuel to Delmarva, brought suit to challenge the validity of the order and the application of the underlying regulation. The district court held that it had jurisdiction to hear the claim despite section 307's restrictions on pre-enforcement judicial review [42 U.S.C. § 1857h-5(b)(1) (1970); see note 58 supra], but denied preliminary relief due to Getty's unlikelihood of prevailing on the merits. Getty Oil Co. v. Ruckelshaus, 4 ERC 1141 (D. Del. 1972). On appeal, the Third Circuit upheld the denial of relief, but concluded that Getty's claims could have been presented in a section 307 proceeding, and that no additional pre-enforcement review was constitutionally required. It thus held that section 307 precluded pre-enforcement review, and that the district court lacked jurisdiction to hear the claim. Getty Oil Co. v. Ruckelshaus, — F.2d —, 4 ERC 1567 (3d Cir. 1972).

95. See text accompanying note 106 infra.
Act, however, this emergency authority was never formally used. Evidence indicates that this is not likely to continue under the Clean Air Amendments of 1970.\textsuperscript{97}

c. Federal Facilities

The 1970 Amendments require all branches of the federal government to comply with federal, state, interstate, and local requirements respecting control and abatement of air pollution to the same extent that any person is subject to such requirements.\textsuperscript{98} However, the President may exempt any emission source if he determines it to be in the paramount interest of the United States to do so, except that no exemption may be granted for new stationary sources; and an exemption from provisions relating to hazardous pollutants may be granted only in the interests of national security.\textsuperscript{99} These requirements are much stricter than the pre-1970 requirements, which required compliance only to "the extent practicable and consistent with the interests of the United States."\textsuperscript{100}

d. Citizen Suits

The 1970 Amendments allow a private citizen to sue in federal court any person, including the Government, for violation of an emission standard or limitation, or for violation of an order of the Administrator.\textsuperscript{101} In addition, a private citizen may sue the Administrator when he fails to carry out any act which is required of him.\textsuperscript{102} However, suit cannot be brought if 60 days' notice has not been given by the private citizen to the Administrator, the state control agency, and the alleged polluter.\textsuperscript{103} Furthermore, no suit is permitted if either the state or federal government is prosecuting a suit against the polluter.\textsuperscript{104} In addition, the Amendments allow the Administrator to become a party

\textsuperscript{97} The major problem under the 1967 provision appears to have been in monitoring capabilities. When the emergency powers provision first became effective, the federal government had virtually no monitoring capabilities in the cities, but there are now federal monitoring facilities placed in over 60 cities. In the past, the emergency provisions served principally as a threat, but they were never actually applied until 1971 in Birmingham. During that episode, twelve sources were either shut down or closed until the emergency passed. Interview with Michael James, Air Quality and Radiation Division, Office of General Counsel, Environmental Protection Agency, in Washington, D.C., March 26, 1972. See also 1972 ENVIRONMENTAL QUALITY REPORT, supra note 60, at 115.


\textsuperscript{99} Id.


\textsuperscript{102} Id. § 1857h-2(a)(2).

\textsuperscript{103} Id. § 1857h-2(b).

\textsuperscript{104} Id. § 1857h-2(b)(1)(B).
to any suit filed under the Amendments by a private citizen, who does not give up any other rights by initiating the action.\textsuperscript{105}

The citizen suit provision is a tremendous addition to the enforceability of air pollution standards. Inadequate manpower to enforce standards has long been a major problem in controlling pollution. Instead of the few enforcement personnel that governmental agencies provide, this provision would remedy the problem by making every person a potential enforcement official. As a practical matter, government is not likely to commit the resources to enforce standards adequately, but citizen suits can make them effective.\textsuperscript{106}

e. Federal Procurement from Polluters

If a party is convicted of an offense punishable by the Clean Air Act, then no federal agency can contract with that person for goods or services. This prohibition applies only to the actual polluting facility and does not preclude a contract for goods and services coming from a non-polluting facility of the same party. The prohibition will be lifted when the Administrator certifies that the condition which led to the conviction has been corrected.\textsuperscript{107}

The President was required to issue a directive by the end of June, 1971, ordering all federal agencies to use their contract, grant, and loan powers to support the policies of the Clean Air Amendments of 1970.\textsuperscript{108} The President was given power to apply appropriate sanctions to insure that his directive is followed.\textsuperscript{109}

It is doubtful that these requirements will be particularly useful. A conviction must be obtained before a facility may be listed and it must be removed from the list as soon as it is in compliance. However, a conviction should stop non-complying activity, particularly if the injunction powers are used, and a facility would probably be removed from the list within days of being listed. If a conviction does not stop violations of a requirement, then the law itself has failed and should be amended. While use of the federal contract power

\textsuperscript{105} Id. § 1857h-2(c)(2).

\textsuperscript{106} For a discussion of citizen suits, see Schroeder, Pollution in Perspective: A Survey of the Federal Effort and the Case Approach, 4 NATURAL RES. LAW. 381, 427 (1971). See also CONSERVATION FOUNDATION, A CITIZEN'S GUIDE TO CLEAN AIR (1972) and NATURAL RESOURCES DEFENSE COUNSEL, ACTION FOR CLEAN AIR (1971), which analyze extensively the role of citizens under the Clean Air Amendments of 1970, as well as the citizen suit provisions.


\textsuperscript{108} Id. § 1857h-4(c). Exec. Order No. 11602, issued June 29, 1971, prohibited federal agencies from entering into contracts with any facility on the EPA Administrator's list of convicted polluters. 3 C.F.R. 167 (Supp. 1971), 42 U.S.C.A. § 1857h-4 (Supp. I, 1971). More extensive regulations are being prepared by the EPA.

would be of some value in this situation, the extent of its effectiveness would be an indictment of the deficiencies in the remainder of the enforcement scheme.

II

OUTLOOK FOR THE FUTURE

While the federal government has played an increasingly important role in air pollution control, it is clear that primary responsibility for stationary source control still lies with the states. However, the federal government plays an extremely important role because it sets ambient air quality standards and prods the states into action. The next few years will test this system of control, which requires a significant degree of intergovernmental cooperation.

A. The Role of the Federal Government

The evolving federal role has seen several shifts. After the passage of the Air Pollution Control Research and Technical Assistance Act, federal officials viewed themselves as providers of technical assistance to state and local agencies. But with the passage of the Clean Air Act in 1963, as well as the 1967 and 1970 amendments to it, this role of neutral competence has been gradually replaced by a more active stance.

Illustrative of the new federal role are the duties given to the Environmental Protection Agency by the Clean Air Amendments of 1970. Among other responsibilities, EPA must promulgate and periodically review ambient air quality standards, publish and periodically update air quality criteria and control technology data, and review and where appropriate revise state implementation plans; ultimately EPA may also have to prepare and implement many state plans itself. EPA must designate performance standards for new stationary sources and emission standards for hazardous air pollutants—and eventually may have to develop and administer implementation plans for these purposes as well. Likewise, the Agency has monitoring and inspection responsibilities, as well as

112. Id. § 1857c-3(c).
113. Id. § 1857c-5.
114. Id. § 1857c-5(c).
115. Id. § 1857c-6.
116. Id. § 1857c-7(b).
117. Id. §§ 1857c-6(c), 1857c-7(d).
118. Id. § 1857c-9.
broader enforcement powers than before.\textsuperscript{119} And this list is not exhaustive.

Given these massive responsibilities, EPA will be sorely pressed to carry out its duties, particularly in light of limitations resulting from manpower and budgetary shortages, coupled with the pressing deadlines set in the 1970 Amendments. Even under the best of circumstances, EPA will have to rely heavily upon state and local governments for enforcement.

For the immediate future, at least, it seems unlikely that the federal government will embark upon large scale enforcement against individual polluters. To begin with, such action would require taking many cases to court, a task which is generally recognized as beyond the capabilities of EPA's present manpower and resources, as well as those of the Department of Justice's Land and Natural Resources Division.\textsuperscript{120} Furthermore, notwithstanding the new enforcement authority granted EPA under the 1970 Clean Air Amendments, the control of individual pollution sources is still recognized in the legislation as the responsibility of state and local governments.\textsuperscript{121}

Given these constraints, the primary federal role will probably be to prod state and local control agencies into taking action.\textsuperscript{122} This is likely to be done in three ways: (1) the provision of technical assistance in pinpointing problems and their possible solution; (2) the mobilization of public opinion to demand that state and local agencies take action; and (3) the threat of eventual federal enforcement if states fail to comply.

This federal role is consistent with our system, in which the federal government leaves responsibility for some areas of regulation to the states. However, if the states occasionally fail to assume this responsibility, it is appropriate that the federal government step in. The enforcement structure in the Clean Air Amendments is ideal for

\textsuperscript{119} Id.

\textsuperscript{120} Interview with Robert Braun, Assistant General Counsel for Air Quality and Radiation, Environmental Protection Agency, in Washington, D.C., April 19, 1972. Any increased federal involvement in enforcement, whether under the 1970 Amendments or subsequent legislation, will require great increases in both manpower and resources. Id.

\textsuperscript{121} The Clean Air Act, as amended, states: "The Congress finds . . . that the prevention and control of air pollution at its source is the primary responsibility of States and local governments. . . ." 42 U.S.C. § 1857(a)(3) (1970).

\textsuperscript{122} However, the control of automotive air pollution is basically the responsibility of the federal government. For a discussion of the governmental role in this area, as well as the 1970 Amendments applying to automotive pollution control, see Institute of Public Administration, Governmental Approaches to Automotive Air Pollution (1971).
a federal system along these lines. If the states refuse to accept their enforcement responsibilities, then the federal government should establish a national system of air pollution control. In such case, the federal government should establish a more rational system of air pollution control on the national level, perhaps based on emission charges.  

**B. The States and the 1970 Amendments**

Until relatively recently, the interest of most states in controlling air pollution was "minimal or nonexistent:"

Insofar as control efforts were made they were made by local government, usually in the large cities where the problem was most acute. The first state air pollution act authorizing enforcement at the state level was passed by Oregon in 1952, and only eighteen states had passed legislation before 1963. However, in 1967 federal legislation made it clear that it was the states' responsibility to control stationary source air pollution. The 1970 Amendments perpetuated this view, but, in addition, hoped to goad the states to action by providing for federal intervention if a state failed to act to control air pollution.

The actual pattern of administration for air pollution control programs, of course, will differ from state to state and will not be fully known until submission of state implementation plans. Some programs will probably be administered on a state-wide basis from the capital. Others will be administered by regional air pollution control officers working for the state. Delegation of authority to major municipalities or air pollution control districts is also a possibility.

Whatever the pattern of administration, the major enforcement responsibility will rest at least initially upon the states. The success of this effort will depend in large measure upon the administrative capability of state pollution control agencies. Based upon past experience and available information, however, there is little reason to think that most states will be soon ready to assume the task mandated

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123. States could have utilized emission charges under regulations promulgated by the EPA [see Requirements for Preparation, Adoption, and Submittal of Implementation Plans, 36 Fed. Reg. 20513 (1971), amending 36 Fed. Reg. 15486 (1971)], but no state has opted for this system of control. Nevertheless, most commentators who have seriously examined effluent or emission charges conclude that it is the most efficient, equitable system of pollution control. See, e.g., INSTITUTE OF PUBLIC ADMINISTRATION, GOVERNMENTAL APPROACHES TO AIR POLLUTION CONTROL (1971); A. KNEESE & B. BOWER, MANAGING WATER QUALITY: ECONOMICS, TECHNOLOGY, INSTITUTIONS (1968); A. PIGOU, THE ECONOMICS OF WELFARE (4th ed. 1952); Mills, Economic Incentives in Air Pollution Control, in THE ECONOMICS OF AIR POLLUTION (H. Wolozin ed. 1966).

124. J. Davies, supra note 4, at 125-26.
them under the 1970 Clean Air Amendments.\textsuperscript{125}

It is doubtful that state implementation plans can provide all the components required by the 1970 Amendments. The Amendments required states to adopt and submit to EPA a plan to implement and maintain air quality standards by February 1972.\textsuperscript{126} These implementation plans were to include statewide authority to:

1. Adopt emission standards and limitations and any other measures necessary for attainment and maintenance of national standards.
2. Enforce applicable laws, regulations, and standards, and seek injunctive relief.
3. Abate pollutant emissions on an emergency basis to prevent substantial endangerment to the health of persons, i.e., authority comparable to that available to the Administrator under section 303 of the Act.
4. Prevent construction, modification, or operation of any stationary source at any location where emissions from such source will prevent the attainment or maintenance of a national standard.
5. Obtain information necessary to determine whether air pollution sources are in compliance with applicable laws, regulations, and standards, including authority to require recordkeeping and to make inspections and conduct tests of air pollution sources.
6. Require owners or operators of stationary sources to install, maintain, and use emission monitoring devices and to make periodic reports to the State on the nature and amounts of emissions from such stationary sources; also authority for the State to make

\begin{itemize}
\item 125. One is hard pressed to think of a city or state that now has effective air pollution control. Anti-pollution control elements seem to be more effective in their battles at the state or local levels than at the federal level, particularly with claims of weaker requirements in other states that will require plant closures or relocation. For a discussion of these pressures, see Hill, \textit{The Politics of Air Pollution: Public Interest and Pressure Groups}, 10 Aiz. L. Rev. 37 (1968).
\item 126. Six national ambient air standards were set by EPA on April 30, 1971. 36 Fed. Reg. 8186 (1971). With the promulgation of these standards, the timetable is set for state enforcement. State implementation plans were due within nine months of this date, \textit{i.e.}, by the end of January, 1972. The states and other jurisdictions submitted their plans in early 1972, but thus far only 16 of the 55 plans have been fully approved by EPA [see 3 ENV. RPTR.--CUE. DEV. 123 (1972); Wall St. J., Sept. 22, 1972, at 2, col. 2 (Pacific Coast ed.)], and the agency has proposed its own regulations to correct and supersede inadequate provisions in the plans of numerous other states. 3 ENV. RPTR.--CUE. DEV. 123, 362 (1972); Wall St. J., supra.
\item Some affected industries, however, have been dissatisfied with state and EPA plans. Several electric utilities have challenged EPA approval of the Ohio plan, alleging (1) failure of EPA to comply with requirements of NEPA, (2) inability of the companies to meet the standard, and (3) invalidity of the requirement that company officials make commitments which they assert cannot be met. 3 ENV. RPTR.--CUE. DEV. 288 (1972). In addition, a group of copper smelting companies has challenged EPA's proposed regulations for Arizona, charging that they are based on an invalid monitoring technique. \textit{Id.} at 519.
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such data available to the public as reported and as correlated with any applicable emission standards or limitations.\textsuperscript{127}

In addition, implementation plans must include land use controls, transportation controls, and such other measures necessary to insure attainment of ambient air quality standards.\textsuperscript{128}

The burden thus placed upon states—in terms of developing these specific kinds of legislative authority in less than a year—was enormous, particularly when it is recognized that the legislation of most states is in its early stages of development.\textsuperscript{129} Furthermore, the existing state statutes varied greatly in their content, and it was doubtful that any state could meet EPA requirements without enacting new legislation.

There are substantial gaps in state air pollution control legislation when compared to the requirements of the Clean Air Amendments of 1970. EPA has promised to provide the states with guidance, advice, and financial assistance to insure that all states have satisfactory pollution control authority. However, state implementation could be delayed if legislatures—by either inaction or opposition—fail to enact the necessary enforcement, inspection and testing authority. It is too soon to say how state legislatures will respond to the new requirements, but the deadline of February, 1972 seems to have made some statutory shortcomings inevitable.

There is a further problem relating to the inability of state agencies adequately to staff their control efforts.\textsuperscript{130} An example is the states' response to the 1967 Amendments,\textsuperscript{131} which required the states to: (1) monitor ambient air quality effectively; (2) adopt appropriate regulations to control stationary source pollution; (3) answer complaints and conduct inspections to assure compliance with applicable regulations; and (4) develop evidence and take appropriate action against non-complying emitters. In spite of the incentive provided by these requirements, at the start of 1970 50 percent of state air pollution control agencies still had fewer than ten full-time positions.\textsuperscript{132}


\textsuperscript{129} In 1963, only 16 states had any type of air pollution control law, [S. DEGLER, STATE AIR POLLUTION CONTROL LAWS 1 (1968)]$, yet by 1970, every jurisdiction had some type of law. S. DEGLER, STATE AIR POLLUTION CONTROL LAWS 1 (1970).

\textsuperscript{130} For a lengthier discussion of this problem, see INSTITUTE OF PUBLIC ADMINISTRATION, GOVERNMENTAL APPROACHES TO AIR POLLUTION (1971).

\textsuperscript{131} See note 14 supra.

\textsuperscript{132} Data on state agency staffing from HEW, REPORT ON MANPOWER AND TRAINING NEEDS FOR AIR POLLUTION CONTROL, S. Doc. No. 91-98, 91st Cong., 2d Sess. 3 (1970). The report also indicates that in late 1969 only 9 states had air pollution control staffs of more than 25 people. For total state and local manpower for 1972 and projected for 1976-1977, see Env. Rptr.—State Air Laws 221:0108 (1972).
CONCLUSION

The 1970 Amendments continue to place the primary responsibility for controlling stationary source air pollution on the states. Delegation to the states has prevailed since the first federal legislation was passed in 1955, with the federal government playing an increasingly active role in each new piece of legislation. It appears likely that the states will not respond to the challenge of the 1970 Amendments any better than they have to previous air pollution control legislation. If the states do fail to control air pollution, the chances are excellent that new federal legislation will place primary, if not sole, responsibility for stationary source air pollution control upon the federal government.

This scenario is not particularly disturbing. Congress, in the interests of a federal system, has given the states more than a fair opportunity to control air pollution. If the states again fail to assume this responsibility, then there seems to be little reason for the federal government not to assume full responsibility for its control.