THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Legal Compilation

Statutes and Legislative History
Executive Orders
Regulations
Guidelines and Reports

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JANUARY 1973

WILLIAM D. RUCKELSHAUS
Administrator

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FOREWORD

It has been said that America is like a gigantic boiler in that once the fire is lighted, there are no limits to the power it can generate. Environmentally, the fire has been lit!

With a mandate from the President and an aroused public concerning the environment, we are experiencing a new American Revolution, a revolution in our way of life. The era which began with the industrial revolution is over and things will never be quite the same again. We are moving slowly, perhaps even grudgingly at times, but inexorably into an age when social, spiritual and aesthetic values will be prized more than production and consumption. We have reached a point where we must balance civilization and nature through our technology.

The U.S. Environmental Protection Agency, formed by Reorganization Plan No. 3 of 1970, was a major commitment to this new ethic. It exists and acts in the public's name to ensure that due regard is given to the environmental consequences of actions by public and private institutions.

In a large measure, this is a regulatory role, one that encompasses basic, applied, and effects research; setting and enforcing standards; monitoring; and making delicate risks–benefit decisions aimed at creating the kind of world the public desires.

The Agency was not created to harass industry or to act as a shield behind which man could wreak havoc on nature. The greatest disservice the Environmental Protection Agency could do to American industry is to be a poor regulator. The environment would suffer, public trust would diminish, and instead of free enterprise, environmental anarchy would result.

It was once sufficient that the regulatory process produce wise and well-founded courses of action. The public, largely indifferent to regulatory activities, accepted agency actions as being for the "public convenience and necessity." Credibility gaps and cynicism make it essential not only that today's decisions be wise and well-founded but that the public know this to be true. Certitude, not faith, is de rigueur.

In order to participate intelligently in regulatory proceedings, the citizen should have access to the information available to the agency. EPA's policy is to make the fullest possible disclosure of information, without unjustifiable expense or delay, to any interested party. With

this in mind, the EPA Compilation of Legal Authority was produced not only for internal operations of EPA, but as a service to the public, as we strive together to lead the way, through the law, to preserving the earth as a place both habitable by and hospitable to man.

WILLIAM D. RUCKELSHAUS
Administrator
U.S. Environmental Protection Agency

PREFACE

Reorganization Plan No. 3 of 1970 transferred 15 governmental units with their functions and legal authority to create the U.S. Environmental Protection Agency. Since only the major laws were cited in the Plan, the Administrator, William D. Ruckelshaus, requested that a compilation of EPA legal authority be researched and published.

The publication has the primary function of providing a working document for the Agency itself. Secondarily, it will serve as a research tool for the public.

A permanent office in the Office of Legislation has been established to keep the publication updated by supplements.

It is the hope of EPA that this set will assist in the awesome task of developing a better environment.

LANE WARD GENTRY, J.D.
Assistant Director for Field Operations
Office of Legislation
U.S. Environmental Protection Agency

ACKNOWLEDGMENT

The idea of producing a compilation of the legal authority of EPA was conceived and commissioned by William D. Ruckelshaus, Administrator of EPA. The production of this compilation involved the cooperation and effort of numerous sources, both within and outside the Agency. The departmental libraries at Justice and Interior were used extensively; therefore we express our appreciation to Marvin P. Hogan, Librarian, Department of Justice; Arley E. Long, Land & Natural Resources Division Librarian, Department of Justice; Frederic E. Murray, Assistant Director, Library Services, Department of the Interior.

For exceptional assistance and cooperation, my gratitude to: Gary Baise, formerly Assistant to the Administrator, currently Director, Office of Legislation, who first began with me on this project; A. James Barnes, Assistant to the Administrator; K. Kirke Harper, Jr., Special Assistant for Executive Communications; John Dezzutti, Administrative Assistant, Office of Executive Communications; Roland O. Sorensen, Chief, Printing Management Branch, and Jacqueline Gouge and Thomas Green, Printing Management Staff; Ruth Simpkins, Janis Collier, Wm. Lee Rawls, Peter J. McKenna, James G. Chandler, Jeffrey D. Light, Randy Mott, Thomas H. Rawls, John D. Whittaker, Linda L. Payne, John M. Himmelberg, and Dana W. Smith, a beautiful staff who gave unlimited effort; and to many others behind the scenes who rendered varied assistance.

LANE WARD GENTRY, J.D.
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INSTRUCTIONS

The goal of this text is to create a useful compilation of the legal authority under which the U.S. Environmental Protection Agency operates. These documents are for the general use of personnel of the EPA in assisting them in attaining the purposes set out by the President in creating the Agency. This work is not intended and should not be used for legal citations or any use other than as reference of a general nature. The author disclaims all responsibility for liabilities growing out of the use of these materials contrary to their intended purpose. Moreover, it should be noted that portions of the Congressional Record from the 92nd Congress were extracted from the "unofficial" daily version and are subject to subsequent modification.

EPA Legal Compilation consists of the Statutes with their legislative history, Executive Orders, Regulations, Guidelines and Reports. To facilitate the usefulness of this composite, the Legal Compilation is divided into the eight following chapters:

A. General
B. Air
C. Water
D. Solid Waste
E. Pesticides
F. Radiation
G. Noise
H. International

AIR

The chapter labeled "Air," and color coded light blue, contains the legal authority of the Agency directly related to air pollution. Several documents under this title are applicable to other areas of pollution, and when this occurs, a reference is made back to "General" where the full text appears. This method is used in order that the documents are not needlessly reproduced in each chapter.

SUBCHAPTERS

Statutes and Legislative History

For convenience, the Statutes are listed throughout the Compilation by a one-point system, i.e., 1.1, 1.2, 1.3, etc., and Legislative History begins wherever a letter follows the one-point system. Thusly, any 1.1a, 1.1b, 1.2a, etc., denotes the public laws comprising the 1.1,

1.2 statute. Each public law is followed by its legislative history. The legislative history in each case consists of the House Report, Senate Report, Conference Report (where applicable), the Congressional Record beginning with the time the bill was reported from committee.

Example:

1.1 Clean Air Act, as amended, 42 U.S.C. §1857 *et seq.* (1970).
  1.1a Air Pollution Act of July 14, 1955, P.L. 84–159, 69 Stat. 322.
    (1) Senate Committee on Public Works, S. REP. No. 389, 84th Cong., 1st Sess. (1955).
    (2) House Committee on Interstate and Foreign Commerce, H.R. REP. No. 968, 84th Cong., 1st Sess. (1955).
    (3) Congressional Record, Vol. 101 (1955):
      (a) May 31: Amended and passed Senate, pp. 7248–7250;
      (b) July 5: Amended and passed House, pp. 9923–9925;
      (c) July 6: Senate concurs in House amendment, pp. 9984–9985.

This example not only demonstrates the pattern followed for legislative history, but indicates the procedure where only one section of a public law appears. You will note that the Congressional Record cited pages are only those pages dealing with the discussion and/or action taken pertinent to the section of law applicable to EPA. In the event there is no discussion of the pertinent section, only action or passage, then the asterisk (*) is used to so indicate, and no text is reprinted in the Compilation. In regard to the situation where only one section of a public law is applicable, then only the parts of the report dealing with same are printed in the Compilation.

Secondary Statutes

Many statutes make reference to other laws and rather than have this manual serve only for major statutes, these secondary statutes have been included where practical. These secondary statutes are indicated in the table of contents to each chapter by a bracketed cite to the particular section of the major act which made the reference.

Citations

The United States Code, being the official citation, is used throughout the Statute section of the compilation.

TABLE OF STATUTORY SOURCE

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1.1	The Clean Air Act, as amended, 42 U.S.C. §1857 *et seq.* (1970).	Directly transferred to EPA in Reorg. Plan No. 3 of 1970.
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1.3	Advances of Public Moneys, Prohibition Against, as revised, 31 U.S.C. §529 (1946).	Referred to in the Clean Air Act at §1857b-1(a)(2)(D).
1.4	Contracts: Acquisition, Construction or Furnishing of Test Facilities and Equipment, as amended, 10 U.S.C. §2353 (1956).	Referred to in the Clean Air Act at §1857b-(a)(2)(D).
1.5	Record on Review and Enforcement of Agency Orders, as amended, 28 U.S.C. §2112 (1966).	Referred to in the Clean Air Act at §§1857c-5(f)(2)(B), 1857f-5(b)(2)(B)(ii).
1.6	Disclosure of Confidential Information Generally, as amended, 18 U.S.C. §1905	Referred to in the Clean Air Act at §§1857c-9(c), 1857d(j)(1), 1857f-6(b), 1857h-5(a)(1).
1.7	Per Diem, Travel and Transportation Expenses; Experts and Consultants; Individuals Serving Without Pay, as amended, 5 U.S.C. §5703 (1969).	Referred to in the Clean Air Act at §§1857d(i), 1857e(e), 1857f-6e(b)(2).
1.8	Highway Safety Act of 1966, as amended, 23 U.S.C. §402 (1970).	Referred to in the Clean Air Act at §1857f-6b(2).
1.9	Federal Salary Act, as amended, 5 U.S.C. §§5305, 5332 (1970).	Referred to in the Clean Air Act at §1857f-6e(b)(3)(A).
1.10	The Federal Aviation Act of 1958, as amended, 49 U.S.C. §1301 *et seq.* (1970).	Referred to in the Clean Air Act at §§1857f-10(a), (b), 1857f-12.
1.11	Department of Transportation Act, as amended, 49 U.S.C. §1651 *et seq.* (1968).	Referred to in the Clean Air Act at §1857f-10(b).
1.12	The National Environmental Policy Act of 1969, 42 U.S.C. §4332(2)(c) (1970).	Referred to in the Clean Air Act at §1857h-7(a).
1.13	The Public Health Service Act, as amended, 42 U.S.C. §§241, 243, 246 (1970).	Referred to in the Clean Air Act at §1857i(b).
1.14	The Davis-Bacon Act, as amended, 40 U.S.C. §§276a-276a-5 (1964).	Referred to in the Clean Air Act at §1857j-3.
1.15	Reorganization Plan No. 14 of 1950, 64 Stat. 1267 (1950).	Referred to in the Clean Air Act at §1857j-3.

1.16 Regulations Governing Contractors and Subcontractors, as amended, 40 U.S.C. §276c (1958).	Referred to in the Clean Air Act at §1857j-3.
1.17 Federal Aid Highway Act, as amended, 23 U.S.C. §109(h), (j) (1970).	Direct reference in Act to EPA and air pollution at §109(h), (i), (j).
1.18 Airport and Airway Development Act, as amended, 49 U.S.C. §§1712(f), 1716(c)(4), (e)(1970).	Direct reference in Act to air pollution at §§1712(f), 1716(e)(1).
1.19 Amortization of Pollution Control Facilities, as amended, 26 U.S.C. §169(d)(1)(B), (3) (1969).	§169d(1)(B) makes direct reference to the Clean Air Act.
1.20 Interest on Certain Government Obligations, as amended, 26 U.S.C. §103 (1969).	At §103(c)(4)(F) industrial development bonds are exempt from taxes on air pollution control facilities.

Executive Orbers

The Executive Orders are listed by a two-point system (2.1, 2.2, etc.). Executive Orders found in General are ones applying to more than one area of the pollution chapters.

Regulations

The Regulations are noted by a three-point system (3.1, 3.2, etc.). Included in the Regulations are those not only promulgated by the Environmental Protection Agency, but those under which the Agency has direct contact.

Guidelines and Reports

This subchapter is noted by a four-point system (4.1, 4.2, etc.). In this subchapter is found the statutorily required reports of EPA, published guidelines of EPA, selected reports other than EPA's and inter-departmental agreements of note.

UPDATING

Periodically, a supplement will be sent to the interagency distribution and made available through the U.S. Government Printing Office in order to provide an accurate working set of EPA Legal Compilation.

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1.1h(1) SENATE COMMITTEE ON PUBLIC WORKS

S. REP. No. 403, 90th Cong., 1st Sess. (1967)

AIR QUALITY ACT OF 1967—AMENDING THE CLEAN AIR ACT AS AMENDED

JULY 15, 1967.—Ordered to be printed
(Filed under authority of the order of the Senate of July 13, 1967)

Mr. MUSKIE, from the Committee on Public Works, submitted the following

REPORT

together with

INDIVIDUAL VIEWS

[To accompany S. 780]

The Committee on Public Works, to which was referred the bill (S. 780) to amend the Clean Air Act to improve and expand the authority to conduct or assist research relating to air pollutants, to assist in the establishment of regional air quality commissions, to authorize establishment of standards applicable to emissions from establishments engaged in certain types of industry, to assist in establishment and maintenance of State programs for annual inspections of automobile emission control devices, and for other purposes, having considered the same, reports favorably thereon with amendments and recommends that the bill as amended do pass.

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I. GENERAL STATEMENT

The prime purpose of the proposed legislation is to strengthen the Clean Air Act, to expedite a national program of air quality improvement, and to enhance the quality of the atmosphere to protect the health and welfare of our citizens against long-term hazards and immediate danger. Considerations of technology and economic feasibility, while important in helping to develop alternative plans and schedules for achieving goals of air quality, should not be used to mitigate against protection of the public health and welfare.

The objective of S. 780 as amended is to achieve clean air, and to do so through the establishment of sound objectives and feasible timetables. The committee's hearings indicated that those who contribute to air pollution share with all Americans the objective of cleaning up the air, and that the differences of opinion expressed were addressed primarily to how that objective best could be accomplished. Through a full understanding of the etiology, the probabilities, and the severity of health and welfare hazards involved and with the strengthening of the technological and economic capabilities for abatement in both the public and private sector of our economy, the needs of public health and welfare without serious or excessive economic dislocation can be met.

In recommending this bill the committee has taken into account the evidence developed in hearings and field studies and, as in the past, has attempted to expand upon the original draft legislation to be responsive to requirements in addition to those contained in S. 780 as introduced.

The American people recognize the threat of air pollution, and they want action. Responsibility for the delays in developing an effective attack on the problem rests with industry, government at all levels, and the legislative process.

This legislation contains imaginative and far-reaching opportunities for air pollution control and abatement, but the bill is complex, as are the problems of environmental control. The problem of air pollution is neither local nor temporary. It is a universal problem, and, so long as our standard of living continues to increase, it will be a permanent threat to human well-being.

S. 780, as amended by the committee, will provide a comprehensive, broad-based attack on the Nation's air pollution problem while expanding the potential of control technology and identifying the health and welfare effects of air pollution. Its objective is the enhancement of air quality and the reduction of harmful emissions consistent with maximum utilization of an expanding capacity to deal with them effectively. At the same time, it provides authority to abate any pollution source which is an imminent danger to health, by whatever means necessary.

The Air Quality Act of 1967, therefore, serves notice that no one has the right to use the atmosphere as a garbage dump, and that there will be no haven for polluters anywhere in the country.

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The committee believes that, to date, public and private efforts, to accomplish air quality objectives have been inadequate. Re-

search has been insufficient, with little significant development of new and improved methods for controlling or eliminating air pollution. As each day passes there is a greater urgency for closer cooperation between government and industry in an effort to make substantial inroads on air pollution control and abatement.

If a successful national program of air pollution abatement is to be implemented there are four principal areas in which there must be accelerated progress—

First, the establishment of criteria of ambient air quality which describe scientifically the effects on health and welfare of varying concentrations of a contaminant, or contaminants, under different atmospheric conditions;

Second, setting of enforceable ambient air quality standards based upon the air quality criteria;

Third, the development of plans for air regions, to implement the established ambient air standards giving due consideration of factors of technical and economic feasibility; and

Fourth, the provision of required stimuli to industry and government to improve emission control technology to the degree required to prevent and abate air pollution.

In order to facilitate the objective of a national abatement program which will enhance the quality of our Nation's air, these amendments provide the Secretary of Health, Education, and Welfare with the following authority:

(1) To request an immediate injunction to abate the emission of contaminants which present "an imminent and substantial endangerment to the health of persons," anywhere in the country;

(2) To designate "air quality control regions" for the purpose of implementing air quality standards, whenever and wherever he deems it necessary to protect the public health and welfare.

(3) In the absence of effective State action in accordance with the provisions of the act, to establish ambient air quality standards for such regions.

(4) In the absence of effective State action in accordance with the provisions of the act, to enforce such standards.

(5) In the absence of action by the affected States, to establish Federal interstate air quality planning commissions.

It should be emphasized that it is the intent of the committee to enhance air quality and to reduce harmful pollution emissions anywhere in the country, and to give the Secretary authority to

implement that objective in the absence of effective State and local control. It is believed that the Air Quality Act of 1967 carries out that intent.

The committee recognizes the potential economic impact, and therefore economic risk, associated with major social legislative measures of this type. But this risk was assumed when the Congress enacted social security, fair labor standards, and a host of other legislation designed to protect the public welfare. Such a risk must again be assumed if the Nation's air resources are to be conserved, and enhanced to the point that generations yet to come will be able to breathe without fear of impairment of health.

S. 780 is a logical expansion of the Clean Air Act of 1963 as amended. In the basic act the Congress provided for development by the Public Health Service of "air quality criteria" to identify the effect of

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pollutants on health and welfare. To date, one such set of criteria relating to oxides of sulfur has been issued and the committee understands that criteria on several other contaminants including carbon monoxide, particulates, and oxidants will be released within the next 6 months.

The committee recognizes this activity and has encouraged its expansion under S. 780. But, while this analysis of the quantitative and qualitative effects of air pollution continues, under strengthened and refined procedures of evaluations. Two new areas have been authorized. A first and important step will be the identification of those areas of the Nation which have significant air pollution problems. The designation by the Secretary of these problem areas will trigger the setting of air quality standards related to those pollutants for which criteria have been developed.

In concert with expanded criteria development will be the compilation of information of methods of pollution control, which will be a publication of the technological and economically feasible methods of control of pollutants subject to criteria. This information will be designed to assist the States in carrying out their responsibility to control air pollution within their respective boundaries.

These steps, designation of air quality control regions, criteria development, and publication of control technology information, are both the tools for development of air quality standards and

an early warning system to those industries and others in problem areas who will be required to control their emissions.

The committee does not suggest that, with one fell swoop, the air pollution problems of the Nation will be solved. Development of the above-mentioned information will require a time equivalent to that considered in the initial administration proposal for uniform national emission standards. And after the information is available and the States adopt standards, there will be the necessary time to achieve desired emissions control.

But we will have a national program of air quality. The States will retain the primary responsibility to determine the quality of air they desire. In no event, however, will the Federal Government approve any air quality standard or plan for implementation of that standard which does not provide for protection of the public health and welfare of all the citizens within the air quality region.

In addition new industries, wherever they locate, will know that control is inevitable and plan for it. The fact that an area is not now a problem area will not mean that controls will never be required. When the air quality of any region deteriorates below the level required to protect public health and welfare, the Secretary is required to designate that region for the establishment of air quality standards, enforceable by the Federal Government if the States fail to act. It should be pointed out in this connection that the Public Health Service has expressed the view that every urban area of 50,000 or more population now has an air pollution problem. There are also population areas under that size which clearly have problems related to particular pollution sources and conditions.

Considerable attention was given, in the hearings and also informal conferences and executive sessions, to the concept of national emission standards. Such standards were urged by the administration (1) as a means of eliminating the economic disadvantage of complying with air pollution controls as a local requirement and the temptation for

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industry to leave or avoid areas where such controls are presently necessary; and (2) on the ground that some industries, by their nature, are a danger to health and welfare wherever they are located.

In the judgment of the committee, these arguments were offset by the following considerations:

(1) The administration itself did not propose uniform

national emission standards but rather minimal national standards. Clearly, therefore, there would be local variations which would not eliminate economic disadvantages. Dr. John T. Middleton, Director, National Center for Air Pollution Control, HEW, said:

> "Our intention is to get minimum national standards to help insure that no single pollution source would, in itself, be a threat to public health and welfare. These standards would be based on scientific criteria of the effects of air pollutants on man, animals, vegetation, and the air resource itself. The criteria we would use would be those which we are authorized to publish under the provisions of the Clean Air Act" (p. 1153).

He said later:

> "The setting of such standards at the Federal level would not relieve States and communities of the responsibility of insuring that pollution sources located within their jurisdictions are controlled to the full extent necessary, States could adopt emission standards more stringent than those set at the Federal level" (p. 1155).

(2) Administration witnesses testified that PHS has made no findings with respect to industries which, in and of themselves, constitute a danger to public health and welfare.

(3) Under the bill approved by the committee, the Secretary's authority has been extended so that he can deal effectively with any situation which, by its nature, is a danger to health and welfare in any location.

(4) National emission standards would eliminate some control options—relocation of pollution sources, fuel substitutes, and so forth—which may be essential in serious problem areas in the absence of effective technology.

(5) Wise use of capital resources dictates that the first priority for the pollution control dollar is in those areas where the problem is most critical. National emission standards would give equal priority to critical areas and areas where no problem presently exists.

(6) The program authorized in the committee bill will lead to control of the industries described on a national basis, with the kind of local variations envisioned by administration witnesses.

The committee does recognize the need for national action on sources of pollution which move in interstate commerce. For the

purpose of further consideration of national emission standards, for moving and stationary sources, the committee bill directs the Secretary to undertake a 2-year study of the concept and the full range of its implications.

Other areas to which the committee gave serious attention were the questions of incentive assistance to industry and alternatives to internal combustion. These matters are discussed later in the report under "Pending Questions."

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II. SUMMARY OF PROVISIONS OF S. 780

S. 780, as ordered reported, includes the following provisions:

(1) Authority for the Secretary to go immediately to court in the event that he finds a particular pollution source or combination of sources, wherever such source or sources may be located, is presenting an "imminent and substantial endangerment to the health of persons" to seek an injunction against the emission of such contaminants as may be necessary to protect public health.

(2) Provision for establishment of the Federal interstate air quality planning agencies if the States do not request designation of a planning agency for an interstate air quality control region.

(3) Provision for the Secretary of Health, Education, and Welfare to set ambient air quality standards in any designated air quality control region, if the States fail within 15 months after receiving a criteria and recommended control techniques, to adopt such standards and an acceptable plan for implementation.

(4) Provision for the Secretary to go to court, after 180 days notice, to enforce any violation of standards in any designated air quality control region.

(5) Specific directive to the Secretary to continue to use existing enforcement procedures as may be necessary to protect public health or welfare during standards development period; and provision for participation by interested parties in an abatement conference.

(6) A three-step approach to development of air quality standards including (1) designation, by the Secretary of Health, Education, and Welfare, of air quality control regions based on the need for pollution control and protection of health and welfare; (2) expansion of the existing provision for development and issuance of criteria as to the health and welfare effects of pollutants or combinations of pollutants; and (3) publication of information on the control technology required to achieve various levels of air quality.

(7) An expanded research and demonstration program to

advance the technology for controlling pollution from fuels and vehicles including specific authorization of $375 million for 3 years—through 1970.

(8) Federal preemption of the right to set standards on automobile exhaust emissions with waiver of application of preemption to any State (California) which had adopted standards precedent to promulgation of Federal standards.

(9) Expanded State and local program grants provision to encourage comprehensive planning for intrastate air quality standards.

(10) Establishment of a statutory President's Air Quality Advisory Board and such other advisory committees as may be necessary to assist the Secretary in performing the functions authorized.

(11) A study of the concept of national emission standards including an analysis of the health benefits to be derived, as well as the economic impact and costs.

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(12) Federal assistance to the States to develop motor vehicle emission and device inspection and testing systems.

(13) Federal registration of fuel additives.

(14) Comprehensive cost analyses of the economic effect on the Nation, industries and communities of air pollution control, and a report thereon to Congress and the President.

(15) Comprehensive reports to the Congress.

(16) Three-year authorization of $325 million for programs other than research on control of pollution from fuels and vehicles —total authorization, including research, $700 million.

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III. NEED FOR LEGISLATION

The committee is concerned about the present status and projected development of our pollution control and abatement programs. Until recently, our society has labored under the illusion that man, through science and technology, had harnessed the resources of nature. Changes in the biospher, even when they result from an "increased standard of living" can actually decrease the quality of life and have adverse effects on public health.

Improvement of man's environment centers on the enhancement of the quality of human life. This was appropriately stated by Dr. William H. Stewart, Surgeon General of the United States:

> "* * * thanks to many advances in protecting people against disease, we are able in the health professions to think about

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the positive face of health—the quality of individual living. The healthy man or woman is not merely free of specific disability and safe from specific hazard. Being healthy is not just being unsick. Good health implies, to me, the full and enthusiastic use by the individual of his powers of self-fulfillment.

"Therefore in controlling air pollution for the benefit of health we are working toward an environment that is not only safe but conducive to good living. I know that you and the members of this committee share this aspiration."

Concomitant with a technological society and a high standard of living is a high production of pollutants and an increasing need for pollution management. This need is readily apparent when considering atmospheric pollution in the vicinity of urban-industrial complexes throughout our Nation. Quoting from Senator Muskie's speech to the National Air Pollution Control Conference on December 13, 1966:

"To date we have set limited goals for ourselves. We have focused on individual pollutants, their weight, their amount, and their immediate and observable effect. We have considered specific emission standards to control individual sources of contamination. We have passed ordinances to reduce smoke; we have planned limitations on sulfur content in fuels used in certain cities; we have taken abatement action against specific polluters.

"These were necessary first steps, but they are not adequate for an effective campaign to improve the quality of our air.

"We have developed the experience required to establish national objectives based upon the long-term view, emphasizing human goals and values which insure the health and well-being of our society.

"Now we must go further—we must attempt to describe the current and projected air pollution levels. We must define the steps necessary to assure the lessening of current levels of pollution and to prevent further environmental

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deterioration in the future. And recognizing the importance of the economic-technological-environmental relationship we must develop the requisite framework to implement the desired goals."

When the need for air pollution control and abatement is approached on the basis of protecting human health there are, essentially, four types of evidence which link air pollution to specific health detriment. The first is the positive correlation between air pollution and excess mortality during what might be termed air pollution epidemics. The second is the epidemiological evidence that shows direct correspondence between the incidence of disease and the levels of air pollution experienced by large population groups over substantial periods of time. The third class of evidence is clinical—derived from studies of human individuals. The fourth class is laboratory evidence based upon animal studies.

Each of these four types of studies, considered alone, presents impressive evidence of air pollution damage to health. Taken together, they add up to a disturbing and convincing portrait of a major health menace.

The first class of evidence comes from studies of major epidemics due to disastrous air pollution conditions during relatively short time periods. The most widely known of these episodes occurred in the heavily industrialized Meuse Valley of Belgium in 1930; in Donora, Pa., in 1948; in New York City in 1953; and in London in 1952 and 1962. During the London smog of 1952, 4,000 more deaths occurred in that city than would normally have happened during a similar period of time. In Donora, an industrial town which in 1948 normally recorded about one death every 3 days, 17 people died in a single 24-hour period during a 4-day smog.

From the standpoint of public health, the information available concerning the acute air pollution episodes that have occurred and the laboratory evidence of the effects of exposure to various pollutants that are in the air puts an exclamation mark by the word "urgency" in relation to this problem.

In any given instance, there may be several reasons why a particular situation may result in chronic disease. But there is no question that the pollutants in the air are contributing factors to the chronic respiratory diseases, lung cancer, emphysema, bronchitis, and asthma. When considering mortality in this country it is this group that is showing a rapid rise as a cause of death and disability. These subtler, less dramatic long-range effects of air pollution are of much more serious consequence to the population as a whole than the occasional major tragedy.

Further research is not needed just to demonstrate a health effect but more importantly to refine existing knowledge when

dealing with chronic disease causation. This is quite different from infectious diseases where it is possible to isolate a specific cause for each disease. Chronic diseases are assumed to be caused by multiple insults or injuries over a long period of time to a human being.

Therefore, in controlling air pollution every effort should be directed toward establishing an environment that not only protects public health but is conducive to good living. Further research is required to define the relationship between pollution and health, but action is required now to take effective steps to control and abate air pollution.

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Ten years from now, when industrial production and waste disposal have increased, and the number of automobiles on our streets and highways will exceed 110 million, the battle for clean air will have been lost unless efforts are made now to strengthen our regulatory and research efforts. The Nation's air resources cannot be looked at as a limitless gift of nature which can be relied upon for the dilution, dispersion, and degradation of our wastes. This mistake was made with respect to our land and our water by looking upon all of our natural resources as a limitless gift of nature. The effect was to overestimate the capacity of our lands and our waters to cleanse themselves of man-made wastes, and man is now faced with the difficult task of restoring the quality of the lands and waters which he had neglected for so long. The necessary steps to protect and enhance the quality of our Nation's air resources must be taken now, before the fact.

Air pollution is not limited to large urban areas where it damages property and endangers health. It is a problem in many smaller communities. Its impact is felt in agricultural and recreational areas where it damages farm crops, timber, and plants of all kinds. The price of air pollution amounts to several billion dollars annually, and this does not include the toll exacted by such respiratory diseases as chronic bronchitis, asthma, emphysema, and lung cancer, all of which are associated with continuing exposure to polluted air.

Future air pollution will worsen in direct proportion to the Nation's economic growth, increases in urban population, demands for heat and energy, use of motor vehicles, disposal of refuse, and production and consumption of manufactured goods. Given the fact that all these latter factors are rapidly increasing, it is reasonable to assume that it will not be long before air pollution

reaches truly critical proportions in many parts of the country. To avoid the impending dangers to the Nation's health and welfare both our research efforts and our regulatory activities must be strengthened. Strong regulatory programs are needed to insure full application of technological, feasible, and economically reasonable methods of control.

Testimony has shown that at present the Nation is not currently employing all the economically and technically feasible methods available for reducing discharges of pollution into the air. Industry, county, and municipal incineration and other private and governmental sources of pollution—including automotive, locomotive, and jet propulsion—must be stimulated to do everything possible with existing capabilities to abate pollution of the air.

At the same time both governmental and private research must be accelerated in an effort to find the means to economically control the emission of gases and particulate matter which pollute the air.

The oxides of sulfur controversy is indicative of the need more precisely to define the relationship between pollution and health and welfare. Because the committee is concerned with both long- and short-term hazards as well as the need for valid scientific data to substantiate the correlation between pollution and health and welfare the Secretary is urged to move forward with diligence and perseverance in the area of scientific analysis as well as research into ways feasibly and effectively to control potentially dangerous emissions.

Research is not intended as a substitute for regulation. Reasonable regulation, should, however, be based on an accurate measurement of the health and welfare needs, technological feasibility of abatement

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of pollution and economic factors involved. Where health considerations permit and there are technological obstacles or known and seriously adverse economic results which would grow out of precipitous abatement action, the timetable for developments through research should be synchronized so that the pollution problem can be solved in an orderly manner.

On the other hand, where there are health hazards, it is expected that State and local authorities will take the necessary abatement

action, and if they do not, the Secretary is specifically authorized to commence abatement action.

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IV. LEGISLATIVE HISTORY

The early authority of the Department of Health, Education, and Welfare with respect to air pollution was derived primarily from Public Law 84–159 (Air Pollution Control Act) as amended. This act authorized a program of research and technical assistance to obtain data and to devise and develop methods for the control and abatement of air pollution by the Secretary of Health, Education, and Welfare and the Surgeon General of the Public Health Service. The act recognized the primary responsibilities and rights of the States and local governments in controlling air pollution, but authorized Federal grants-in-aid to air pollution control agencies to assist them in the formulation and execution of their research programs directed toward abatement of air pollution.

This act was amended by Public Law 86–493, which directed the Surgeon General to conduct a thorough study of motor vehicle exhaust as it affects human health through the pollution of air. Subsequently, in 1962, the Air Pollution Control Act was amended by Public Law 87–761 to make permanent the requirement that the Surgeon General conduct studies relating to motor vehicle exhaust.

With the adoption of the Clean Air Act of 1963 (Public Law 88–206), Federal policy in the field of air pollution control underwent significant evolution. Although there was no change in the view that responsibility for the control of air pollution rests primarily with State and local governments, the Federal Government was further directed to equip itself to aid State and local control programs more effectively and to stimulate them to the increased level of activity considered necessary. With this act the Congress provided the Federal Government with the authority to—

(1) Grant consent to interstate agreements or compacts for the prevention of air pollution.

(2) Authorize a broad program of research, investigations, and training.

(3) Authorize the compilation and publication of criteria reflecting accurately the latest scientific knowledge indicating the type and extent of effects which may be expected from the presence of air pollutants.

(4) Authorize grants to air pollution control agencies to develop, establish, and improve programs for the prevention and control of air pollution.

(5) Authorize grants up to two-thirds of the cost of developing, establishing, and improving air pollution control programs to air pollution control agencies, and up to three-fourths of such costs to intermunicipal or interstate air pollution control agencies.

(6) Authorize a procedure to carry out abatement actions.

(7) Direct the Secretary of Health, Education, and Welfare to encourage continued efforts on the part of the automotive and fuel industries to prevent pollutants from being discharged from the exhaust of automotive vehicles.

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(8) Authorize the establishment of a technical committee to evaluate progress in the development of automotive pollution control devices and fuels, and to develop and recommend research programs.

(9) Recognize the need for cooperation by Federal departments in controlling air pollution from installations under their jurisdiction.

During January, February, June, and July 1964, following the enactment of the Clean Air Act, the subcommittee conducted field and technical hearings to obtain factual data to be used as a basis for determining whether additional legislative action was required. Subsequently, a subcommittee report entitled "Steps Toward Clean Air" documented the findings of hearings and recommended legislative action.

The committee in reporting the bill believed the legislation essential to successfully combat the air pollution problems. It was recognized that automotive exhausts are not the only source of air pollution, but they are a major problem and they are increasing rapidly.

The committee determined from the automotive industry's own testimony that it could meet the California standards of 275 parts per million of hydrocarbons and not more than 1.5 percent by volume of carbon monoxide. The committee believed that the standards could be applied and were reasonable, and by applying them, the Nation would take a major step toward the control and abatement of air pollution.

It was also evident to the committee that further research was needed to determine effects of automotive pollutants other than hydrocarbons and carbon monoxide and to find means of controlling them and to advance the research activities relating to

reducing the emissions of oxides of sulfur produced by the combustion of sulfur-containing fuels.

The committee was convinced that a Federal Air Pollution Control Laboratory was needed to provide facilities to carry out research and experimentations in perfecting methods and means of reducing air pollution.

The committee believed that it was important that the Clean Air Act be amended so that it not only provided a basis for action to abate pollution in our country but also adopted a procedure for cooperation with foreign countries in cases involving endangerment of health or welfare.

With the signing by President Johnson on October 20, 1965, of Public Law 89–272, the Secretary assumed major new responsibilities for the prevention and control of air pollution, which included—

(1) Provide for recommended motor vehicle exhaust emission standards by the Automotive Vehicle and Fuel Pollution Technical Committee and, by regulations, for the establishment of standards, requirements, or limitations on emissions from new motor vehicles or new motor vehicle engines and devices or motor vehicle design not later than September 1, 1967.

(2) Prohibit the distribution in commerce of any new motor vehicle or new motor vehicle engine manufactured after the effective date of regulation unless it is in conformity with such regulations. It is also required that such vehicle or engines offered for importation must meet prescribed regulations.

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(3) Provide for enforcement procedures for the abatement of air pollution adversely affecting a foreign country.

(4) Authorize the conduct and acceleration of research programs relating to means of controlling hydrocarbon emissions resulting from the evaporation of gasoline in carburetors and fuel tanks, and the means of controlling emissions of oxides of nitrogen and aldehydes from gasoline-powered or diesel-powered vehicles.

Although important progress had been made in the brief period since enactment of the Clean Air Act, a sustained and accelerated effort appeared needed if the promise of that act to prevent and control air pollution was to be fulfilled.

In enacting the Clean Air Act, the Congress established important policy through its findings, as contained in section 101, "that

the prevention and control of air pollution at its source is the primary responsibility of States and local government; 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."

Section 104 of the act authorized grants to air pollution control agencies in support of the cost of developing, establishing, or improving programs for the prevention and control of air pollution. The amounts authorized to be allocated for such grants were not to exceed 20 percent of the total appropriations for all purposes under the act. Grants were authorized to be made, under such terms and conditions as the Secretary finds necessary, in amounts up to two-thirds of the eligible program costs, except that in the case of grants to intermunicipal or interstate agencies, the grants may be up to three-fourths of eligible program costs.

This approach authorized a Federal role limited to providing an initial stimulation of program improvements and subsequent withdrawal of support on the assumption or hope that non-Federal funds will be available to substitute for the Federal share.

Experience under this provision indicated that certain areas, where strengthened programs where needed, were ineligible for Federal assistance which would otherwise be warranted, because very little or no "new" non-Federal funds were made available in the current fiscal year. Increased local funds and the strengthening of local programs occurred in prior fiscal years; as a result, the provisions tended to penalize those areas which acted on their own initiative to control air pollution prior to the availability of Federal grant funds. The maintenance and continuation of expanded efforts by State and local air pollution control agencies required in the future not only stimulatory grant assistance but sustaining grants as well. Sustaining grants adequately reflected the strong Federal interest and responsibility in air pollution control and significantly improved the effectiveness of programs in giving impetus to greater State and local action.

In 1966, the Congress amended the Clean Air Act by enacting Public Law 89–675, which—

(1) Consolidates into one section appropriation authorizations.

(2) Authorizes the Secretary to make grants to air pollution control agencies in an amount up to one-half of the cost of maintaining programs for the prevention and control of air pollution.

(3) Authorizes the Secretary to make grants to intermu-

nicipal or interstate air pollution control agencies in an amount up to

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three-fifths of the cost of maintaining regional air pollution control programs.

(4) Removes the limitation that no more than 20 percent of the sums appropriated annually under the act may be used to make grants for support of air pollution control programs.

(5) Provides that in determining eligibility for a program grant the Secretary shall not consider nonrecurrent expenditures of the participating agency in the preceding year.

(6) Provides that in the case of a grant for a program in an area crossing State boundaries the Secretary will determine the portion of such grant that is chargeable to the 12½-percent limitation imposed by the act for air pollution control program grants in any one State.

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V. HEARINGS

On February 8, 1967, the Subcommittee on Air and Water Pollution began hearings on the problems associated with air pollution. The purposes of the hearings were to consider the present status of our air pollution control and abatement programs, the nature of current and prospective dangers from air pollution, and the need for new legislation. The legislative proposal before the committee was S. 780, the bill designed to implement the President's recommendations for an accelerated attack on the contamination of our air. During the course of the hearings, testimony was received from witnesses in four major areas:

First, the President's purposed Air Quality Act of 1967 (S. 780) and Senator Randolph's amendments (Nos. 154, 174, 175, and 181).

Second, the experience to date on (1) the effectiveness of automobile pollution control devices which require that all 1968 automobiles must meet the automotive emission standards, (2) progress in the inspection and maintenance of devices and systems to control automotive emissions and (3) the need for future Federal standards. For the purpose of receiving testimony, field hearings were held in Los Angeles, Calif., and Detroit, Mich., and included tours of the Chrysler, Ford, and General Motors research facilities.

Third, experience in the development of the air quality control regions and the establishment of ambient air quality standards.

For this purpose, field hearings were held in Denve Colo., and St. Louis, Mo.

Fourth, the current "state-of-the-art" of air pollution control technology and the research required to insure the successful abatement of air pollution. Extensive testimony was received on methods currently under development for the control of sulfur oxide emission resulting from the combustion of fossil fuels.

During the course of 18 days of hearings—February 8, 13, 14, 20, 21, April 3, 4, 19, May 2–4, 8–10, and 15–18—the Subcommittee on Air and Water Pollution heard from more than 85 witnesses representing every sector of our Nation's economy involved in air pollution control and abatement.

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VI. MAJOR PROVISIONS OF THE BILL AS REPORTED

The Clean Air Act marked the beginning of a new and much more hopeful era in air pollution control. For the first time, authority was provided for Federal regulatory action to abate interstate air pollution problems and for the awarding of Federal funds to encourage the development of regulatory control programs at the State and local levels.

This bill—S. 780—as reported, reflects a fuller appreciation of what is really at stake in the fight against air pollution and provides unprecedented opportunities for effective control action at all levels of government. It recognizes that control efforts which were considered acceptable just a few years ago are now clearly inadequate. It reflects the knowledge that the American public, to whom Congress is ultimately responsible, will no longer be content with control efforts which are not equal to the challenges of the present and the future. Developed in full awareness of the public's greatly increased support and demand for prompt and effective control action, the Air Quality Act of 1967 broadens control programs at all levels of government in an effort to protect and enhance the quality of the environment.

RESEARCH

While there has been considerable research provided under the Clean Air Act the committee recommends that the Secretary give special emphasis to research and development into new and improved methods, having industrywide application, for the prevention and control of air pollution resulting from the combustion of fuels and that this effort be accelerated by:

(1) Conduct and accelerate research programs directed toward development of improved, low-cost techniques for control on combustion byproducts of fuels, for removal of potential pollutants from fuels, and for control of emissions from evaporation of fuels;

(2) Provide for Federal grants or contract with public or private agencies, institutions, or persons for (A) part of the cost of acquiring, constructing, or otherwise securing, for research and development purposes, new or improved devices or methods having industrywide application of preventing or controlling discharges into the air of various types of pollutants; and (B) carrying out the other provisions of this section, without regard to sections 3648 and 3709 of the Revised Statutes—31 U.S.C. 529, 41 U.S.C. 5;

(3) Determine, by laboratory and pilot plant testing, the results of air pollution research and studies in order to develop new or improved processes and plant designs to the point where they can be demonstrated on a large and practical scale;

(4) Construct, operate, and maintain, or participate in the construction, operation, and maintenance of new or improved

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demonstration plants or processes which have promise of accomplishing the purposes of this act;

(5) Study new or improved methods for the recovery and marketing of commercially valuable byproducts resulting from the removal of pollutants; and

(6) Establish technical advisory committees composed of recognized experts in various aspects of air pollution and its control to assist in the examination and evaluation of research progress and of all research proposals and contracts and to insure the avoidance of duplication of research.

No matter how successful the development of solutions to the remaining technical problems of air pollution control through the combined efforts of industry and government, it is unrealistic to consider that progress will be rapid enough to cope with the steadily worsening air pollution problem in the absence of the new authority contained in the proposed Air Quality Act of 1967.

The proposed research contained in the bill makes provision for enlarging this research effort by the specific authority to enter into demonstration contracts with industry. Such contracts are to prove the technological and economic feasibility of the control

of pollutants from the combustion of fossil fuel and shorten the timelag between research, development, and full-scale practice.

In administrating and conducting the research authorized under this act the Secretary is directed to utilize, to the maximum extent practicable, the services, facilities, and resources of other Federal agencies in carrying out his responsibilities under the act. As an example, one agency whose services, facilities, and resources should be of particular value in carrying out the clean air program is the Tennessee Valley Authority. The greater part of TVA's electric power is generated by steam, and the Authority has for years conducted basic research in pollution control techniques. TVA has broad responsibilities relating to the development of the Tennessee Valley region and extensive research and other facilities which will be useful in the conduct of the clean air program, and the committee desires that the Secretary consult with and arrange for full use of the services, facilities, and resources of TVA and such similar existing Federal facilities to accrue in connection with the implementation of the act.

There is without a question need for further research to delineate the effects of low concentrations of exposure of various contaminants for extended periods.

The immediate need is to develop methods to control the emission of sulfur compounds, oxides of nitrogen, carbon monoxide and carbon dioxide, and other substances which are products of man's activities.

An area which has not been adequately promoted to date is assistance to industry in improving the effectiveness and reducing the cost of control equipment and applying known technology to new situations. The committee envisions several areas wherein the Federal Government could be particularly effective, as follows:

1. Joint support and direction with control equipment manufacturers to investigate shortcomings in present equipment and to develop solutions which would be available to all manufacturers. Federal sponsorship of such programs would be an effective catalyst in bringing competitive groups together to study common problems. The plan has the added advantage of keeping such research "topical," provides the sharing of the direction of efforts by those who know the problems

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best, and would insure rapid commercial availability of new developments.

Joint efforts of this type could be carried on with many trade associations including the various Divisions of the Industrial Gas

Cleaning Institute, for example, in the areas of electrostatic precipitators, mechanical collectors, fabric collectors and wet collectors. This organization represents the major manufacturers of control equipment in the United States.

2. Joint support and direction of research and development with trade associations with unsolved air pollution problems. Here again the close association between Federal participants and industry representatives would be most fruitful for keeping research efforts "on track." Problems which came to mind in this regard are those connected with the pulp industry, the rendering industry, foundries, secondary materials reclamation and incineration to name but a few.

Oxides of sulfur

The magnitude of the requirements to develop technologically reasonable and economically feasible methods of control are easily visualized when considering the control of oxides of sulfur as an example.

The principal sources of sulfur oxides as an atmospheric pollutant are metallurgical processes handling sulfur-containing ores, sulfuric acid plants, and combustion processes which use high-sulfur coal or fuel oil.

The sulfur concentrations in flue gases from metallurgical operations are normally relatively high and processes have been developed and installed which recover many hundreds of tons of sulfur products per day. Where concentrations are greater than 1 percent, physical means have been developed for the removal of sulfur oxides, but cannot accomplish essentially complete removal of this pollutant.

Low concentrations of sulfur oxides exist in flue gases from sulfuric acid plants and from the combustion of fuels. In both these cases, because of the low concentrations present, the economic removal of sulfur from the flue gases is difficult at the present time. In the cases of low concentrations, chemical means are under development for the removal of sulfur oxides from flue gases and they are capable of essentially complete removal of sulfur oxides.

The area of interest to the committee includes those cases which heretofore have involved concentrations less than those economically reasonable to remove. A number of processes were presented during the hearings. A brief description of those in advance stages of development follows.

(1) The alkalized alumina process involves the removal of sul-

fur oxides from the flue gases by their absorption on a hot solid, followed by regeneration of the absorbent with a reducing gas and recovery of the sulfur as elemental sulfur. This process is under the sponsorship of the Public Health Service and a pilot plant was built at the Pittsburgh Coal Research Center, Brucetown, Pa., in 1961 and operated for 3 years. The committee also is cognizant of and commends the continuing efforts being made in this field by the Bureau of Mines of the U.S. Department of Interior.

(2) The catalytic oxidation process is essentially a contact sulfuric acid plant. In the process flue gases pass through a high temperature electrostatic precipitator which removes virtually all the fly ash.

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The fly ash entrained in the flue gases must be reduced to a trace so that it will not subsequently impair the flow of flue gases through the catalyst bed. As the gases flow through a fixed catalyst bed (vanadium pentoxide) sulfur dioxide is chemically changed to sulfur trioxide and ultimately results in a sulfuric acid mist. The acid mist is removed by an electrostatic precipitator. A pilot plant has been built by the Pennsylvania Electrical Co. in cooperation with Monsanto Co. in Seward Station, Pa. Recently Monsanto acquired the principal interest in the process development and is considering several modifications.

(3) The dolomite process which utilizes an additive that neutralizes the corrosive combustion products and forms a disposable compound with the sulfur.

Studies conducted by the Combustion Engineering Research Department indicated that alkaline earth additives can prevent high- and low-temperature corrosion in boilers.

The system involves the feeding of an additive (dolomite) into the furnace and wet scrubbing the flue gas leaving the air heater.

The dolomite fed into the furnace is calcined by the heat of the furnace producing a more reactive compound; any deposits formed on high temperature surfaces are noncorrosive; and the calcined particles react with the sulfur trioxide (SO_3) in the flue gas thus preventing low-temperature corrosion.

By the use of a scrubber, the calcium and magnesium oxides are dissolved in water, and the sulfur dioxide in the flue gas reacts to

form sulfates and sulfites of calcium and magnesium which, in turn, are precipitated in the wash water.

The committee also notes that research is underway on processes for removing sulfur from fuels. Removal from oil as a result of improved refining processes and removal from coal through several hopeful procedures are still in the research stage. Examples include:

(1) The char-oil-energy development project which employs the use of a fluidized-bed pyrolysis process in which high sulfur content coal can be converted into sulfur-free synthetic crude oil and pipeline gas, and a solid fuel char. While the char initially has the same sulfur content as the coal, through a hydrodesulfurization step in the process, the sulfur content of the char can be substantially eliminated and the sulfur recovered as a valuable byproduct. Thus sulfur-free char is then useful as a boiler fuel, giving off no sulfur fumes in the combustion process. The committee has been advised that laboratory work has indicated the technical and commercial feasibility of this process on numerous types of coal from various parts of the country and the Office of Coal Research of the Department of the Interior has a contract with FMC Corp. for the construction of a pilot plant within the next year.

(2) The pyritic sulfur reduction process involves separation of pyritic particles utilizing a system of air classification which is followed by a fine grinding of the coal at the utility plant. A pilot project is soon to be constructed at a utility plant located in the central part of Pennsylvania. Basic research on the project has been done at the industry-supported Bituminous Coal Research, Inc., laboratories at Monroeville, Pa.

In addition, the fly ash is simultaneously scrubbed from the flue gas. Heat added to the stack gases minimizes steam plume formation.

A summary of funds allocated for sulfur oxides control projects in fiscal year 1967 follows. Also attached in response to a request

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from the subcommittee staff, is a table showing budget allocations for in-house research and development on air pollution control technology by the Public Health Service during the past 10 years and the amounts furnished the Bureau of Mines of the Department of the Interior during the same period.

Summary of funds allocated for SO_2 control projects, fiscal year 1967

	Cost
Fiscal year 1967 regular budget:	
Pyrite-coal combustion	$489,000
Limestone-based processes	1,118,000
Alkalized alumina	973,000
Molten carbonate	420,000
New control process	400,000
Total	3,400,000
Fiscal year 1967 supplemental:[1]	
New control processes	1,400,000
Systems and economic studies	1,000,000
Control processes—smelters, refineries, etc.	300,000
Total	2,700,000
Grand total	6,100,000

[1] Projects and related activities for the areas listed in the supplemental are being developed.

IN-HOUSE BUDGET ALLOCATION FOR RESEARCH AND DEVELOPMENT IN AIR POLLUTION CONTROL TECHNOLOGY, U.S. PUBLIC HEALTH SERVICE AND U.S. BUREAU OF MINES, FISCAL YEARS 1957–66

[In thousands of dollars]

	Sulfur dioxide control, R & D.		Other stationary & source control, R & D.		Vehicle control		Total	
	PHS	BM	PHS	BM	PHS	BM	PHS	BM
Fiscal year—								
1957	0	32	30	33	60	60	90	125
1958	0	42	40	93	80	92	120	227
1959	0	42	60	87	90	98	150	227
1960	0	45	100	64	90	124	190	233
1961	0	75	130	65	110	160	240	300
1962	50	113	150	50	170	187	370	350
1963	60	120	180	20	220	310	460	450
1964	80	170	180	30	240	300	500	500
1965	150	265	190	46	290	289	630	600
1966	160	270	110	60	340	325	610	655
1967	280	330	150	65	440	389	870	784
Total	780	1,504	1,320	613	2,130	2,334	4,230	4,451

Other research needs

On a very different scale additional research is needed on the meteorology of cities to determine the effect of the city on airflow. For every situation which may result in acute exposure to the population at large there must be devised mathematical models to describe the dynamics of the urban boundary layers, including the changes in nature and the amount of pollutants as they interact in the city air.

At the same time we must accelerate the development of meth-

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ods to reduce urban pollution concentrations. This means creating moderation of airflow incorporating surveillance and emission data and substantiating the results with air pollution observance. On a very large

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scale we need to establish a measurement program to document national and global trends in atmospheric contaminants. This effort will be required to evaluate the effectiveness of our air pollution control programs on the abatement of air pollution and the effect of air pollutants on weather modification.

These are but examples from the summary of research which were appropriately defined by Dr. Louis McCabe in the following summary:

I. AUTOMOBILE EXHAUST

A. Additives to fuel and their effect on vegetation and man.

B. Production of satisfactory exhaust or substitution of power elements.

II. SULFUR OXIDES AND OTHER AIR CONTAMINANTS

A. Developments in recovery of sulfur dioxide.

B. Clinical and experimental studies on exposure of man and animals to air contaminants.

(1) Supplemental current research by private and public research laboratories.

(2) Further studies on man and animals.

(3) Tolerance levels of animals and man.

(4) Concentrations of sulfur oxides encountered on inspiration and expiration by cigar, pipe, and cigarette smokers.

C. Ambient air investigations related to sulfur oxides and other air contaminants.

(1) Tolerance levels of plants; effects on life and condition of decorative trees and resistant strains of trees and other vegetation in metropolitan areas. Development of plants for cities.

(2) Tolerance levels of animals and man.

(3) Survey of levels of pollution (SO_2, H_2SO_4, CO, hydrocarbons, carcinogens, et al.) in living space (for example, conference rooms, airplanes, et cetera).

D. Instrument development required.

(1) More specific and reliable instruments. (Today we do not have satisfactory continuous monitoring equipment for particulates and for sulfur dioxides emitted from power stations or other industrial sources.)

(2) Measurements responsive to effects of pollutants.

E. Abatement equipment.

1. To handle odors, fumes, and gases.

III. BASIC RESEARCH ON AIR CONTAMINANTS

A. Gross and long-time effects on our environment.

B. Degradation and cycle of pollutants in relation to time.

C. Weather modification and other effects of pollutants on environment.

D. Interrelationship of air and water pollution.

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GRANTS FOR SUPPORT OF AIR POLLUTION PLANNING AND CONTROL PROGRAMS

Section 105 of the bill expands the provision for grants for development and maintenance of State and local pollution programs to include grants for planning for air quality standards. As revised, the provision authorizes grants up to two-thirds of the cost of planning, in addition to developing, establishing, or improving programs, and grants in an amount up to one-half of the cost of maintaining pollution control programs and plans of air pollution control agencies. The revised section also provides up to three-fourths of the cost of developing, establishing, or improving programs and plans, and up to three-fifths of the cost of maintaining regional air quality control programs, both interstate and intrastate. Any grant recipient must be capable of carrying out certain conditions specified in the bill, including representation of State and local interests as well as adequate capability to organize and maintain an effective air quality standards program.

A summary of the grant awards and total program budgets under the Clean Air Act is shown in tables I and II.

TABLE I.—AIR POLLUTION CONTROL PROGRAM GRANTS

	Authorized	Requested	Appropriated
Fiscal year—			
1965	(1)	$4,400,000	$4,180,000
1966	(1)	5,000,000	5,000,000
1967	(1)	7,000,000	7,000,000
1968	(1)	[2] 20,259,000	
1969	(1)	[3] 23,500,000	
1970	(1)	[3] 28,000,000	
1971	(1)	[3] 31,000,000	
1972	(1)	[3] 32,000,000	

[1] The Clean Air Act, Public Law 88-206, sec 104 reads in past as follows "(a) From the sums appropriated annually for the purposes of this act but not to exceed 20 per centum of any such appropriation, the Secretary is authorized to make grants to air pollution control agencies * * *" This restriction to 20 percent of the total appropriation was removed by the 1966 amendments to the act, Public Law 80-675

[2] From President's budget

[3] Projected budget requests

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TABLE II.—SUMMARY OF AIR POLLUTION CONTROL PROGRAM GRANTS BY STATE

FISCAL YEAR 1967

State	Number of projects	Total grant value	Average grant value	Total program budgets	Percent grant of total
Alabama	4	$121,642	$30,410	$195,991	62.0
Alaska	0				
Arizona	2	85,000	42,500	169,211	50.2
Arkansas	1	38,680	38,680	58,020	66.7
California	4	391,483	97,870	5,317,141	.73
Colorado	5	342,613	68,522	647,700	52.9
Connecticut	10	295,461	29,546	445,640	66 4
Delaware	0				
District of Columbia	1	36,700	36,700	77,708	47.3
Florida	4	188,457	47,114	296,185	63.7
Georgia	4	73,777	18,444	125,168	59.0
Hawaii	1	25,166	25,166	75,966	33.2
Idaho	1	17,982	17,982	26,982	66.7
Illinois	3	522,500	174,166	1,475,876	35.5
Indiana	7	204,800	29,257	408,175	50.2
Iowa	1	10,400	10,400	26,767	38.8
Kansas	1	74,214	74,214	98,952	75.0
Kentucky	1	196,828	196,828	316,666	62.1
Louisiana	1	63,448	63,448	103,213	61.5
Maine	0				
Maryland	0				
Massachusetts	4	105,020	26,255	228,574	46.0
Michigan	4	370,918	92,729	796,370	46.5
Minnesota	2	93,678	46,829	155,870	60 2
Mississippi	0				
Missouri	5	382,000	76,400	709,147	53.9
Montana	2	36,900	18,450	70,811	52.2
Nebraska	0				
Nevada	1	32,424	32,424	46,986	69.0
New Hampshire	1	18,680	18,680	31,160	60.0
New Jersey	2	260,960	130,480	827,021	31.6
New Mexico	2	62,526	31,263	97,799	68.2
New York	15	608,715	40,580	5,466,768	11.2
North Carolina	9	163,448	18,160	221,945	73.7
North Dakota	1	10,000	10,000	15,000	66 7
Ohio	7	244,338	34,705	611,506	40.0
Oklahoma	3	42,305	14,101	61,364	69.0
Oregon	3	103,745	34,881	279,495	37.5
Pennsylvania	6	453,086	75,514	1,279,334	35.5
Rhode Island	0				
South Carolina	3	80,101	26,700	122,641	65.4
South Dakota	0				
Tennessee	3	41,748	13,916	87,830	47.6
Texas	3	108,892	36,297	127,763	85.3
Utah	1	20,726	20,726	39,268	52.8
Vermont	0				
Virginia	3	31,936	10,645	72,064	44.4
Washington	2	126,690	63,345	211,067	60.0
West Virginia	2	159,159	79,579	273,894	58.1
Wisconsin	1	12,978	12,978	226,651	57.0
Wyoming	0				
Guam	0				
Puerto Rico	1	117,156	117,156	201,678	58.0
Virgin Islands	0				
Total		6,378,179	2,084,040	22,121,864	28.9

INTERSTATE AIR QUALITY AGENCIES OR COMMISSIONS

Recognizing the administrative and political difficulties inherent in the establishment of effective interstate air pollution control planning agencies, section 106 of the bill authorizes the Secretary to pay up to 100 percent of the air quality planning program costs of any interstate agency designated by the Governors of the affected States under section 106(a) for up to 2 years. The interstate agency is to concern itself with recommending to the Governors of the participant States standards of ambient air quality and plans for implementation and enforcement of emission controls required to achieve the recommended standards of air quality.

In the absence of any action by the States involved in an interstate air quality control region designated pursuant to section 108(*c*)(2),

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the Secretary is authorized to designate an air quality planning commission for the purpose of recommending air quality standards and a plan for their implementation.

The interstate commission, when established by the Secretary under section 106(b), is essentially an arm of the Federal Government in that it is designed to assist the Secretary in establishing standards and plans for implementation. Provision is made, however, for consultation with the affected States and representation of appropriate units of government within the area. In this way, even in the event the States fail to act, the Secretary can utilize the available information regarding State and local conditions and maximize the effectiveness of any standards or plans which may be adopted either at the State or Federal level.

AIR QUALITY CONTROL REGIONS, CRITERIA, AND CONTROL TECHNIQUES

The committee recognizes that there is a critical shortage of competent manpower in the area of environmental pollution control and abatement. Many State and local agencies have only recently begun to staff programs adequate to meet the challenge ahead. Therefore the Federal Government must provide the leadership, funds, consultation, and technical information which air pollution control agencies require to promulgate meaningful standards and plans for their implementation and enforcement.

Atmospheric areas

Section 107 of the bill directs the Secretary to define the existing

atmospheric areas which affect the interchange and diffusion of pollutants in the atmosphere.

Air quality control regions

The Secretary is also directed to designate air quality control regions based on jurisdictional boundaries, urban industrial concentrations, and other considerations and factors necessary to provide adequate implementation of air quality standards.

Air quality control regions shall be designated by the Secretary, whenever protection of public health and welfare requires establishing air quality standards.

Air quality control regions would be designated by the Secretary, whenever in his judgment protection of public health and welfare required establishing air quality standards.

An air quality control region might conceivably be coterminous with an atmospheric area or it might be part of an atmospheric area.

The committee feels that lack of definition of atmospheric areas at this time does not preclude the Secretary from designating air quality control regions in those areas where immediate measures are required to effect air pollution control and abatement. The committee feels that in instances where the Secretary is satisfied that an air pollution problem exists this authority should be exercised as soon as practicable.

Air quality criteria

Under the Clean Air Act of 1963 the Secretary is authorized to develop, publish and issue to the States air quality criteria which identify the health and welfare impact of a contaminant or con-

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taminants, an air pollution agent or combination of agents. The content of such criteria was brought out on April 19, 1967, when Dr. Middleton said (p. 2522):

> "Air quality criteria are an expression of the scientific knowledge of the relationship between various concentrations of pollutants in the air and their adverse effects on man, animals, vegetation, materials, visibility and so on.
>
> "Air quality criteria can and should be used in developing air quality standards. Criteria and standards are not synonymous. Air quality criteria are descriptive; that is, they describe the effects that can be expected to occur whenever and

> wherever the ambient air level of a pollutant reaches or exceeds a specific figure for a specific time period."

He also said:

> "Air quality standards are prescriptive; they prescribe pollutant levels that cannot legally be exceeded during a specific time in a specific geographic area."

An expression of scientific knowledge, the critetria indicate quantitatively and qualitatively the lowest known levels of exposure at which specific deleterious effects have been reported for a given pollutant or combination of pollutants of inorganic, organic, bacteriological, or radioactive nature. This means that the criteria reflect evidence pertaining not only to so-called normal, healthy adults but also to those individuals—such as the young, elderly, and impaired—who may be sensitive to certain effects of air pollution.

To date the publication of criteria pursuant to the act have been limited to oxides of sulfur. The Administration said during the hearings that air quality criteria for several other major categories of pollutants have been under development for some time. Among them are criteria for photochemical oxidants, nitrogen oxides, carbon monoxide, and hydrocarbons. Closest to completion are the criteria for photochemical oxidants which are expected to be completed October 1967. Criteria for nitrogen oxides, hydrocarbons, and carbon monoxide should be completed early in 1968. Work is also underway on the development of criteria for particulate pollutants. The initial document on particulate matter will be focused primarily on the overall mixture of particulates present in polluted urban air, though some attention will be given to various components of the mixture. Work on this document is scheduled for completion by the fall of 1967. Additional documents dealing in greater depth with the most important types of substances generally present in particulate matter are to be prepared afterward.

Other pollutants for which the development of criteria are under consideration include lead, fluorides, hydrogen sulfide, certain heavy metals, ethylene, asbestos, organic carcinogens, and aldehydes. The development of criteria for odors is also being considered. The sequence in which these additional criteria will be developed will depend in large part on an evaluation of the relative urgency of making such criteria available for the various categories of pollutants.

Priorities for the development of criteria for various categories

of pollutants have been, and will continue to be, determined on the basis of several considerations, including the magnitude and seriousness of the problems associated with each category of pollutants, the extent and seriousness of their effects on health or welfare, and the degree

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of the need for such criteria in connection with air pollution prevention and abatement activities. On the basis of such considerations, first priority has been assigned to the development of criteria for the most widespread and common types of pollutants including sulfur oxides, photochemical oxidants, carbon monoxide, hydrocarbons, nitrogen oxides, and particulate matter.

The committee has included language which requires that all criteria issued precedent to the enactment of this act must be reevaluated in accordance with the provisions of the revised criteria section and, if necessary, modified and reissued.

It is expected that those criteria presently nearing completion will be issued only after careful consideration of the directives contained in section 107(b). Early consideration of these directives, even though this legislation may still be pending, will mitigate against unnecessary modification or reissuance of such criteria. Active reconsideration of those criteria already issued, without awaiting final congressional action, could facilitate the effectiveness of this legislation.

The committee also strongly urges the Secretary to move as quickly as practicable to develop information required by section 107(c). Recommended control techniques are essential to the establishment of meaningful air quality standards and therefore should be made available to the States and local government as soon as possible giving due consideration to the need for developing the best available information.

The committee has purposely not required a specific order for release of criteria and control techniques. While requiring that both be available to a Governor before a standard setting procedure can be triggered it is recognized that these scientific and technical documents are more than just the tools for a standard setting procedure.

Criteria and recommended control requirements are advance warnings to industries or other sources of contamination of what will be expected of them. On the basis of any criteria issued an industry can begin to analyze its pollution problem and plan to meet its responsibility. After receiving the latest and best infor-

mation on control techniques and alternatives an industry can begin to plan its control program. Both of these activities will facilitate achievement of ambient air quality standards at such time as those standards are established.

Recommended control techniques

The committee recognizes that criteria of ambient air quality which define health and welfare effects of air pollution do not take into consideration the technological and economic feasibility of achieving such air quality. They further recognize that existing control technology may not be adequate; however, control methods must be implemented as soon as economically feasible and technologically available. As an aid to air pollution control agencies in the formulation of plans, including time schedules to implement emission control standards, the bill directs the Secretary, after consultation with appropriate advisory committees and Federal departments or agencies, to issue recommended control techniques which reflect current technology and the economic feasibility of achieving various levels of air quality as specified in the criteria including alternative control techniques and their economic feasibility. Such recommendations shall include such data as are available on the latest available technology and economic feasibility of alternative methods of prevention and control of air contamination including cost-effectiveness analyses.

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The Federal role in the development of control technology to meet these needs should proceed along three lines: (1) Support to industry to conduct research and development of control techniques in its own facilities; (2) joint support and direction of research and development as previously discussed; and (3) research and development carried out by the Federal Government in its facilities or by contract.

The method chosen would depend on the size of the industry involved and its capabilities to share support or carry out the required investigations.

It was suggested during the course of the hearings that allowance should be made to use our air resource to the maximum extent possible without exceeding ambient air quality. The construction of new powerplants outside our urban complexes is an example of this approach. In addition, the use of such alternatives as tall stacks can be employed to alleviate a particular pollu-

tion problem pending the development of additional control technology.

Subsection (c) directs the Secretary to consult with appropriate advisory committees and Federal departments and agencies, and then to issue to the States and appropriate air pollution control agencies, information on pollution control techniques recommended to achieve the levels of air quality specified in criteria issued under subsection (b). Such information is to include technical data relating to the technology and the costs of complying with pollution control. The Secretary's recommendations are also to include data concerning available technology and economic feasibility of alternative methods of prevention and control of air contamination including cost effectiveness.

The committee expects that in the development of air quality criteria under subsection (b) as well as in formulating recommendations indicated by such criteria, the Secretary will utilize the resources of qualified Federal departments and agencies to the fullest extent practicable, including those within the Department of Commerce. For example, with regard to atmospheric conditions the Environmental Science Services Administration has been conducting the basic national program in meteorological measurements and predictions. The Business and Defense Services Administration is well qualified to analyze questions of economic feasibility by virtue of its continuing evaluation of processes, costs, investment, and financing of industrial production and commercial enterprise, economywide as well as on an industry-by-industry basis. Moreover it is intended that the resources of the Department of Commerce be utilized in conducting the comprehensive studies provided for under sections 211 and 305.

AIR QUALITY STANDARDS

Air quality standards are a way of implementing air quality criteria as actual requirements for performance by polluters or potential polluters. Air quality standards are prescriptive; they prescribe pollutant levels that cannot legally be exceeded during a specific time in a specific geographic area.

An expression of public policy rather than scientific findings, their development from air quality criteria will be influenced not only by a concern for the protection of health or welfare, but also by economic, social, and technological considerations. The committee feels that under any circumstances protection of health should be considered

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a minimum requirement, and wherever possible standards should be established which enhance the quality of the environment.

The bill directs the Secretary to (1) designate air quality control regions, (2) issue criteria of ambient air quality, and (3) to publish control techniques currently available and their relative costs. At the time the criteria for a given contaminant or contaminants and recommended control techniques are issued, the time begins to run. A Governor is given 90 days to file a letter of intent to establish State standards consistent with the purposes of this act for the air quality control regions in his State. The standards must be set, after public hearings, within 6 months after he files the letter of intent. The time schedule and plan for implementing such standards must be filed within 6 months thereafter.

If a State fails to (1) file a letter of intent within 90 days; (2) to establish standards within 180 days; or (3) file a plan for implementation and enforcement within 180 days, the Secretary is authorized to perform these functions for the air quality control regions within that State. When standards have been set, either by a State or by the Federal Government, the Federal Government will have authority to enforce the standards in the absence of effective State action. These are the three additional extensions of control and abatement authority that S. 780 gives to the Secretary.

The Secretary will approve the State standards if he finds (1) the air quality standards are consistent with the air quality criteria and recommended control techniques which he published; (2) the plan is consistent with the purposes of the act including assurances of achieving such standards of air quality within a reasonable time; and (3) a means of enforcement by State action, including authority comparable to the imminent endangerment provisions of this bill is provided. If the above conditions are met, such State standards and plan shall be the air quality standards applicable to such State.

Emission controls

The achievement of the established ambient air quality standards is contingent upon the application of meaningful emission controls on the various sources of air pollution, within a given air quality control region.

Such emission control requirements are established for the purpose of achieving specific air quality standards. They may include such alternative courses of action as process changes, flue gas

stack controls, stack height requirements, fuel use limitations, or plant location rules, but in any event should include the best available technology required to achieve the desired level of ambient air quality.

Any emission control should be based on a survey of the emission inventory within the air quality control region. This survey should include the amounts and types of pollutants being emitted, an evaluation of those meteorological factors that will influence their dispersal and transport, and a consideration of the various other factors that influence air quality.

Subsequently, these emission inventories will need to be updated as new sources of pollution are established within the air quality control region. Consequently, it is desirable that the emission inventory survey include a projection of increased urbanization, industrialization, and population trends within the air quality control region.

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It should be noted that when emission control requirements are set on the basis of emission inventories for a given air quality control region, those emission control requirements could conceivably vary from one air quality control region to another even though their application may result in the same degree of ambient air quality.

Since emission control requirements are legally enforceable limitations on the amount of pollution that a single source or category of source may discharge into the atmosphere, they must consider technology and the economics of control. Current methods of control that are technologically and economically feasible may not be as effective as required to achieve the desired ambient air quality. Therefore, as technology advances, new emission control requirements must be implemented on a continually more restrictive basis until such time as the established ambient air quality standard is achieved. Such an approach necessitates that the best available control technology be applied at the time it is developed.

Such emission control should be to the degree required to insure the ambient air quality for the air quality control region of concern. At the same time it is requisite that emission controls insure that those individuals in the immediate environs of any given source be assured of an ambient air quality equivalent to that set for the entire air quality control region.

ABATEMENT CONFERENCE

In order to provide all parties affected by an abatement action a greater opportunity to participate in the proceeding of the abatement action, the conference procedure has been revised. Notice of any abatement conference has been extended from 3 weeks to 30 days. At the time the notice is given a Federal report is to be made available which defines the matters to be set before the conference, and any data and/or recommendations which the Federal Government wishes to make.

In this manner the committee expects the Secretary to provide interested parties who may be affected by any abatement actions resulting from the conference, an opportunity to present their views relative to the Federal report and/or recommendations, and other pertinent information.

It is expected that the Secretary will provide more detailed regulations for these conferences and other hearings provided for in the act so that they will be carried out under standardized procedures. To the extent consistent with orderly and fair administrative practices, it is expected that those regulations will provide that all persons having a substantial interest in a matter under consideration, and whose participation would not simply be repetitious or cumulative, will be permitted to participate therein and that adequate public notice will be provided to permit such persons to request the right to participate. This policy will provide the conferees with the broadest review of the pollution problems in a given area. It is expected that such regulations will be in accordance with the Administrative Procedure Act requirements to the extent consistent with the statutory purposes of the conferences or hearings involved.

Time will be required for the establishment of air quality standards and their effective implementation. It is not intended that the time required to establish such standards interfere with the protection

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of public health and welfare. The committee recognized this in two ways: (1) Imminent endangerment to health can be acted on by the Secretary through injunctive proceedings; and (2) the committee has directed the Secretary to continue to act to abate pollution pursuant to existing abatement procedures whenever he finds the public health or welfare endangered.

Because of the unique nature of the air quality standards set-

ting process, requiring criteria and control information as a triggering mechanism, many interstate and intrastate regions will continue to have interim air pollution problems. It is therefore essential that the Secretary continue to act expeditiously to abate pollution either on his own motion in interstate situations or at the request of a Governor in an intrastate situation.

The Secretary should, when appropriate in these situations, take cognizance of those criteria and recommended control techniques issued and allow the State opportunity to establish standards for the subject agents or combination of agents.

IMMINENT ENDANGERMENT

Under this provision the Secretary will have authority to proceed immediately to court for abatement of any pollution that creates substantial and imminent public health endangerment anywhere in the country. The committee feels this far-reaching authority is necessary during the standards development period, due to the passage of time which will occur prior to establishment of enforcible standards. And we cannot allow time to justify a continued danger to anybody anywhere in the country whether it is an interstate or intrastate pollution situation.

This provision directs itself to the control of pollution sources which are contributing to air pollution under conditions resulting in an imminent and substantial endangerment to public health. Under this provision the Secretary would have absolute authority to take the required control steps to avert disaster episodes such as occurred in the heavily industrialized Meuse Valley of Belgium in 1930; in Donora, Pa., in 1948; in New York City in 1953; and in London in 1952 and 1962. Such incidents are obvious, dramatic, and tragic.

This provision would not preclude the Secretary from enjoining an individual source of pollution where there is evidence of a direct effect on public health.

This provision is not intended to circumvent the enforcement procedures provided under the Clean Air Act. Action against a single source would be subject to this provision only where public health is in imminent and substantial endangerment.

PRESIDENT'S AIR QUALITY ADVISORY BOARD AND ADVISORY COMMITTEES

The committee recognizes the need for participation by all segments of our national economy if air pollution control and abate-

ment is to be achieved. For this reason there has been provided in the bill for a 15-member President's Air Quality Advisory Board to advise and consult with the Secretary on matters of policy relating to the programs of the Secretary conducted under the provisions of this act.

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Appointed members are to be selected so as to be representative of State, interstate, and local governmental agencies and of public or private interests demonstrating an active interest in the various aspects of air pollution prevention and control and related problems, as well as other individuals who are expert in the field of air pollution.

Additional technical advisory committees are authorized under this provision. Such advisory committees are to be established from time to time by the Secretary, in order to obtain assistance in the development and implementation of air quality criteria, recommended control techniques, standards, research, and development, and to encourage the continued efforts on the part of industry to improve air quality and to develop economically feasible methods for the control and abatement of air pollution.

The committee feels that these advisory committees should contain sufficient representation from the various groups concerned with air pollution, including State and local authorities, medical and scientific personnel, and industry experts in pollution abatement, to permit and enhance both effective and useful consultation between the Secretary and his associates and other interested parties.

TITLE II—NATIONAL EMISSIONS STANDARDS ACT

STATE STANDARDS (ON AUTOMOTIVE EMISSIONS)

The Clean Air Act Amendments of 1965 enabled us to begin attacking the problem of motor vehicle pollution, through the establishment of national standards applicable to new motor vehicle or new motor vehicle engines. Initial standards, pertaining to crankcase and tailpipe emissions from gasoline-powered vehicles, will become effective in the 1968 model year.

During the field hearings a good deal of testimony was heard regarding the problems and progress associated with the automobile emission control devices which will be required on all 1968 model cars and which were installed on all 1966 model cars sold in California. Information on those automobile emissions not

presently covered by standards which have been promulgated either by the Secretary of Health, Education, and Welfare, or the State of California, led the committee to the conclusion that additional information is needed to improve existing standards and develop new standards for—

(*a*) Hydrocarbons and carbon monoxide in exhaust from all new vehicles.

(*b*) Nitrogen oxides emissions in exhausts from all new vehicles.

(*c*) Odors from new diesel-powered vehicles.

(*d*) Particulates from all new vehicles including smoke and the residues from additives such as lead, barium, and nickel.

Fuel additives for the reduction of pollution have been little used—and apparently little studied—in the United States, although they are required by law in several European countries. Little information on them is available in the open literature. They are primarily intended to suppress diesel smoke, and the only American study in print claims to see little effect.

During its field hearings in Los Angeles and Detroit the committee heard a good deal of testimony relating to the question of Federal preemption of the right of States to set standards on emissions from motor vehicles.

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To date only California has actively engaged in this form of pollution control and, in fact, the initial Federal standard is based on California's experience. The Federal standard will be applicable to all 1968 model automobiles sold in the United States. Other States have enacted legislation and regulations governing crankcase emissions but this control method has been in general use throughout the United States since 1963.

On the question of preemption, representatives of the State of California were clearly opposed to displacing that State's right to set more stringent standards to meet peculiar local conditions. The auto industry conversely was adamant that the nature of their manufacturing mechanism required a single national standard in order to eliminate undue economic strain on the industry.

The committee has taken cognizance of both of these points of view. Senator Murphy convinced the committee that California's unique problems and pioneering efforts justified a waiver of the preemption section to the State of California. As a result, the committee incorporated in section 202(b) a waiver amendment

offered by Senator Murphy. It is true that, in the 15 years that auto emission standards have been debated and discussed, only the State of California 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.

This situation may change. Other regions of the Nation may develop air pollution situations related to automobile emissions which will require standards different from those applicable nationally. The committee expects the Secretary to inform the Congress of any such situation in order that expansion or change in the existing waiver provision may be considered.

Until such time as additional problems of this type arise it seemed appropriate that the waiver provision of subsection (b) should be limited solely to California. This approach can have several positive values:

1. Most importantly California will be able to continue its already excellent program to the benefit of the people of that State.

2. The Nation will have the benefit of California's experience with lower standards which will require new control systems and design. In fact California will continue to be the testing area for such lower standards and should those efforts to achieve lower emission levels be successful it is expected that the Secretary will, if required to assure protection of the national health and welfare, give serious consideration to strengthening the Federal standards.

3. In the interim periods, when California and the Federal Government have differing standards, the general consumer of the Nation will not be confronted with increased costs associated with new control systems.

4. The industry, confronted with only one potential variation, will be able to minimize economic disruption and therefore provide emission control systems at lower costs to the people of the Nation.

As stated in the act the Secretary is required to waive application of preemption to California unless he finds (1) that compelling and extraordinary conditions do not exist; (2) that California's standards are not consistent with the test of economic practicability and technological feasibility required in section 202(a) of the act; or (3) that

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the accompanying enforcement procedures are in conflict with the intent of section 202(a).

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It is essential that the Federal Government and State of California cooperate closely in the development of enforcement procedures relative to certification of vehicles so that the industry, when confronted with differing standards, need not be faced with different methods of obtaining certification.

Implicit in this provision is the right of the Secretary to withdraw the waiver at any time after notice and an opportunity for public hearing he finds that the State of California no longer complies with the conditions of that waiver.

The committee has provided for Federal preemption of the right to set standards on new motor vehicles and new motor vehicle engines only. Specific language indicating the committee's position on the rights of the States to control the movement, operation, and use of licensed or registered vehicles is included.

This language is of particular importance. While there has been a great deal of concern expressed regarding control of new vehicles little attention has been paid to control of used vehicles, either their emissions or their use. It may be that, in some areas, certain conditions at certain times will require control of movement of vehicles. Other areas may require alternative methods of transportation. Unfortunately some of these alternatives have been ignored and the onus of control has been placed solely on the automobile manufacturers.

It is clear that, if a pollution-free (or at least minimized) rapid transit system reduced commuter traffic there would be a corresponding decrease in automobile-related air pollution. And any significant advance in control of used vehicles would result in a corresponding reduction in air pollution. These are areas in which the States and local government can be most effective.

This is not to suggest that the industry cannot do more. The committee learned during its field hearings that there could be and should be more attention paid to quality control by the manufacturer. This is extremely important at the present time and will be essential when uniform enforcement procedures are developed and emission standards are applied to individual cars.

Also, the industry must push forward much more rapidly with its research efforts and, in so doing, take advantage of technology developed outside of Detroit. The recently announced agreements between major automobile manufacturers and oil companies are gratifying in this regard.

And the fuel industry has a particular responsibility. Too little is being done by that industry to develop gasolines which con-

tribute less to pollution. This area needs renewed emphasis both by the industry and by the Federal Government.

The committee considered it essential that the Department of Commerce be represented on the Board. As indicated in our explanation of subsection 107(c), it is intended that this Department be given many responsibilities in providing technical and economic advice under this act. Also it is believed that the participation of the Department of Commerce in the ultimate establishment of air quality standards will provide a basis for achieving the objective of air pollution abatement, with the minimum economic disruption to the various industries affected.

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FEDERAL ASSISTANCE IN DEVELOPING VEHICLE INSPECTION SYSTEMS

From the testimony it was readily apparent there is not now available the technology which would permit examination of exhaust emissions for a given automobile. The current standards that have been set by the Federal Government do not insure that each and every automobile will meet the standards.

The committee believes the establishment of emission standards for individual motor vehicles is contingent on the development of standard test procedures, and the testing of control systems to establish their effectiveness. The first need is to develop reproducible methods for evaluation of smoke and odor and to develop standard test methods. The second is the development of standard methods for measurement of air pollutants.

Federal responsibility under this provision would be to insure the development of appropriate test procedures and, in general, to provide technical assistance.

States responsibility would be to assume responsibility for inspection of pollution control systems as an integral part of safety inspection programs, which some States now have and others are developing.

FUEL ADDITIVES

The bill would provide new authority pertaining to fuel additives, in the form of a requirement that the fuel manufacturer register such additives with the Secretary of Health, Education, and Welfare before they are introduced into interstate commerce. This is intended to provide an opportunity for full assessment of the effects of such additives on the environment and on public

health. It is clearly in the best interests of both the public and industry to evaluate the effects of additives already in widespread use and to provide a mechanism for advance evaluation of proposed new additives before they reach the environment.

The second provision of the bill calls for the registration of the physical and chemical characteristics of additive by the additive manufacturer.

The prime purpose of this proposal is to insure full access to the technical information needed to evaluate the possible health hazards of such materials. Too often, new contaminants enter the environment and are widely dispersed before recognition that they may endanger human health. The Secretary presently has authority to set standards for emissions from motor vehicles. Should he find that any fuel additive emitted from motor vehicles is presenting a threat to health and welfare, he has the authority to act pursuant to that title.

Among the substances widely used as fuel additives, tetraethyl lead has been identified as a compound of major concern to the public health. An intensified research program on the long-term effects of lead at concentrations found in the ambient atmosphere of urban communities is being undertaken. Other additives in common use are barium and nickel and their health significance is under review. Still others will inevitably be introduced in the future.

In order to evaluate the biological hazard, it is necessary to know what substances are emitted into the air in the original effluents, and the concentrations they reach. Under the various weather conditions,

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they may interact chemically to produce new pollutants, and, finally, the influence of the resultant chemical mixture on health.

Fuel additives, while designed to improve engine performance, may actually contribute to pollution. The concern for health effects of lead emissions from cars falls into three categories: direct toxicity, ecologic upset, and weather modification.

Although direct toxicity of fuel additives such as lead is a proven fact for occupationally exposed people, proof is lacking with regard to the general populace. This will almost certainly be a problem in the future as the auto population and lead and other fuel additives increase.

NATIONAL EMISSIONS STANDARDS STUDY

As was pointed out in the general statement considerable attention was given, in the hearings, to the concept of national emission standards. Such standards were urged by the administration as (1) a means of eliminating the economic disadvantage of complying with air pollution controls as a local requirement and the temptation for industry to leave or avoid areas where such controls are presently necessary; and (2) on the ground that some industries, by their nature, are a danger to health and welfare wherever they are located.

In the judgment of the committee, these arguments were offset by the following considerations:

(1) The administration itself did not propose uniform national emission standards but rather minimal national standards. Clearly, there would be local variations which would not eliminate economic disadvantages. Such variation is seen in the example provided for the record which follows (hearing record, p. 2525):

EXAMPLE

The following is an example of a hypothetical national emission standard for an industrial process:

For this example, we have selected sulfur dioxide emissions from sulfuric acid manufacturing plants using the contact process. On the basis of air quality criteria for sulfur oxides, we selected hypothetical ambient air quality standards for sulfur dioxide of 0.10 p.p.m. (parts of sulfur dioxide per million parts of air) for a 24-hour average; 0.25 p.p.m. for a 1-hour average; and 0.5 p.p.m. for a 5-minute average. It was assumed that the maximum ground concentration of sulfur dioxide attributable to the source to be regulated should not exceed 35 percent of the air quality standard in an area of moderate or low pollution; and 20 percent in an area of relatively high pollution.

Based on the above discussion and considering available technically and economically feasible means for reducing emissions and using meteorological dispersion formulas, the attached table I of allowable emissions of sulfur dioxide and minimum stack heights was prepared for plants of various sizes located in each of two types of areas as defined in table II.

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TABLE I.—HYPOTHETICAL EMISSION STANDARDS AND STACK HEIGHT REQUIREMENTS FOR CONTACT PROCESS AND SULFURIC ACID PLANTS

Plant capacity (tons of 100 percent sulfuric acid per 24-hr. day)	Maximum allowable emission of SO_2 in tons per day by type of area [1]		Minimum effective stack height in feet [2] by type of area [1]	
	Type A	Type B	Type A	Type B
100	2	1 5	145	150
300	6	4.5	230	270
500	10	7.5	280	320
700	14	10.5	325	370
900	18	13.5	350	400

[1] See table II for definition.

[2] Minimum effective stack heights can be decreased if emissions are less than the maximum allowable. The decrease in effective stack height will be in direct proportion to the extent to which emissions are less than the maximum allowable.

TABLE II.—DEFINITION OF AREAS [1]

Type of area	Sulfur dioxide concentration parts per million [2]			Sulfur dioxide emission density tons per square miles per day [3]	Population in 1,000's [4]
	24 hour average	1 hour average	5 minute average		
A	0 0–0 05	0 0–0.12	0.0–0 25	0 0–1.3	Less than 200.
B	Greater than 0 05	Greater than 0.12	Greater than 0 25	Greater than 1 3	Greater than 200

[1] Use sulfur dioxide concentrations if available, if not, use emission density, if neither is available, use population.

[2] Maximum values at any point within 1 mile of the plant after subtracting the calculated concentration attributed to the source to be regulated.

[3] Average for the area within 3 miles of the plant to be regulated on a day of maximum emissions, not including the plant to be regulated

[4] Population of the standard metropolitan area, or, if not in such an area, of the county in which the source is located.

> In some areas it may be necessary to require even more restrictive emission control. It may also be necessary to provide for pollution reduction or maintenance of existing levels by means of land use controls and emission reduction requirements applicable to other sources of pollution. This responsibility would rest with State and local governments.
>
> This hypothetical standard, for the sake of brevity, does not include many of the details that might need to be incorporated in an actual standard.

(2) At the time administration witnesses testified they were not in a position to designate industry sources, which by their very nature, were a danger to health and welfare wherever located. However, the administration was able to furnish a representative list of industries which were suspected of producing a health and welfare effect wherever located and would be considered for national emission standards (p. 2260):

> In case of the steel mill, for instance, we think of the pollutants being principally particulate matter; smoke; and carbon

monoxide, at least from the blast furnace.

From the steam electric generating stations, we again think of particulate matters; smoke, the sulfur oxides and for some of the new plants some nitrogen oxides would be a problem.

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For the nonferrous smelters, the particulate matter and sulfur compounds. Then, referring to the specific smelters, there may be specific metallic particulate that we would have to consider.

For the petroleum refineries, again it is the sulfur compounds, hydrocarbons, smoke, particulate matter, and some odorous matter.

For cement plants, particulate matter and sulfuric acid.

For iron and steel foundries, smoke, particulate, and odorous materials.

For pulpmills, sulfur compounds, odorous matter, and for some of them, the problem of chlorine.

(3) Under the amendments approved by the committee, the Secretary's authority has been extended so that he can deal effectively with any situation which, by its nature, is a danger to health and welfare, on any location.

(4) National emission standards would eliminate some control options—relocation of pollution sources, fuel substitutes, and so forth—which may be essential in serious problem areas in the absence of effective technology.

(5) Wise use of capital resources dictates that the first priority for the pollution control dollar is in those areas where the problem is most critical. National emission standards would give equal priority to critical areas and areas where no problem presently exists.

(6) The program authorized in the committee amendments will lead to control of the industries described on a national basis, with the kind of local variations envisioned by administration witnesses.

However, the committee feels that the concept of national emission standards for stationary sources deserves further investigation as a supplement to the standard setting procedures provided in S. 780 as reported.

For the purpose of further consideration of national emission standards, the committee amendments direct the Secretary to undertake a 2-year study of the concept. At that time further consideration should be given to the concept.

TITLE III

COMPREHENSIVE ECONOMIC COST STUDIES

In order to provide the committee a basis for evaluating programs authorized by this act and the development of new programs, the Secretary is required to make a detailed estimate of the cost of carrying out the provisions of this act for a 5-year period beginning July 1, 1969. The report is to include (1) a comprehensive study of the cost of program implementation by affected units of government; and (2) a comprehensive study of the economic impact of air quality standards.

In addition the Secretary is required to make a complete investigation and study to determine (1) the need for additional trained State and local personnel; (2) means of using existing Federal training programs to train such personnel; and (3) the need for additional trained personnel to develop, operate, and maintain those pollution control facilities designed and installed to implement air quality standards.

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ADDITIONAL REPORTS TO CONGRESS

Section 306 of the bill requires the Secretary to submit reports to Congress which describe program accomplishments in connection with the Act. The annual report is to include—

(1) The progress and problems associated with control of automotive exhaust emissions and the research efforts related thereto;

(2) The development of air quality criteria and recommended emission control requirements;

(3) The status of enforcement actions taken pursuant to this act;

(4) The status of State ambient air standards setting, including such plans for implementation and enforcement as have been developed;

(5) The extent of development and expansion of air pollution monitoring systems;

(6) Progress and problems related to development of new and improved control techniques;

(7) The development of quantitative and qualitative instrumentation to monitor emissions and air quality;

(8) Standards set or under consideration pursuant to title II of this act;

(9) The status of State, interstate, and local pollution con-

trol programs established pursuant to and assisted by this act; and

(10) The reports and recommendations made by the President's Air Quality Advisory Board.

APPROPRIATIONS

The committee has authorized a total of $325 million for 3 years for carrying out operation and program functions other than sections 103(d) and 104 which are subject to separate authorization. The new requirements authorized by these amendments demand expanded Federal activity in every facet of air pollution control. Manpower requirements, general research activities, expanded abatement procedures, and other newly authorized functions will require these additional funds.

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VII. SECTION-BY-SECTION ANALYSIS OF S. 780, AS REPORTED

The following analysis of S. 780 discusses all of the recommended changes in the Clean Air Act of 1963—Public Law 88–206—as amended—Public Laws 89–272 and 89–675. It describes in some detail the modifications in the Clean Air Act together with appropriate remarks.

TITLE I—AIR POLLUTION PREVENTION AND CONTROL

Section 101. Findings and Purposes

The purposes of this title are revised to include by revising paragraph (b)(1) "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population."

Sec. 102. Cooperative Activities and Uniform Laws

No changes were effected in this section of the act. The intent of this provision was appropriately defined in Senate Report 88–638 (p. 6).

> "This section authorizes 'the Secretary of Health, Education, and Welfare to not only encourage cooperative activities by State and local governments but he is also required to cooperate with and encourage cooperative activities by all Federal departments and agencies. The Secretary is author-

ized to encourage the enactment of uniform State and local laws where practicable, and to encourage the making of agreements and compacts between States. The consent of Congress is given to the negotiation of such compacts of agreements for cooperative effort, mutual assistance, and enforcement of their respective laws and for the establishment of such agencies as may be desirable to effectuate such agreements or compacts. Such compacts or agreements must be approved by the Congress before they become binding or obligatory.' "

Sec. 103. Research, Investigation, Training, and Other Activities

First, the provision of subsection (a) (4) of the act which requires the Secretary to specifically initiate, among others, a program of research directed toward the development of improved, low-cost techniques for extracting sulfur from fuels is deleted and included in new section 104 of this bill.

Second, the provision of subsection (a) (5) of the act which requires the Secretary to conduct research programs relating to the control of emissions from gasoline- and diesel-powered vehicles, and emissions of oxides of sulfur from sulfur-containing fuels has also been deleted and included in section 104 of this bill.

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Third, the provision of subsection (c) (2) of the act which authorizes the Secretary to compile and publish for informational purposes criteria relating to air pollutants which may be harmful to the public health or general welfare has been deleted and included under subsection 107 (b) of the bill.

The remaining provisions of this section are unchanged and are:

"Briefly, it requires the Secretary to establish a national research and development program for prevention and control of air pollution, and for that purpose to conduct research, render technical service, and conduct investigations and research if requested to do so by appropriate air pollution control agencies, or to do so on his own initiative if the problem of air pollution is interstate in nature. For these purposes the Secretary is authorized to collect and make available information on the subject; to cooperate with all interested public and private agencies and institutions; to make grants for research, training, surveys, studies, and demonstrations; to contract for these purposes; to establish research fellow-

ships; to collect and disseminate basic data on chemical, physical, and biological effects of varying air quality; to develop effective and practical processes, methods, and prototype devices for the prevention and control of air pollution" (S. Rept. No. 88–638, p. 6).

Sec. 104. Research Relating to Fuels and Vehicles

This new section expands the provisions deleted from section 103, dealing with research directed toward the development of improved, low-cost techniques for extracting sulfur from fuels, and research relating to the control of emissions from gasoline and diesel-powered vehicles, and emissions of oxides of sulfur from sulfur-containing fuels.

This section requires the Secretary to give special emphasis to research into new methods for the control of air pollution resulting from fuel combustion. To this end he is required to conduct research programs which will include the control of combustion byproducts, removal of potential pollutants, and control of emissions from evaporation; provide for Federal payments to public and private groups; test results of air pollution control research to develop new or improved processes and designs which can be demonstrated on a practical scale; participate in, or be responsible for, the operation of demonstration plants for such new processes; study methods for the use of commercially valuable byproducts resulting from the removal of pollutants; and establish technical committees to examine and evaluate research progress and contracts and to insure the avoidance of research duplication.

In order to carry out the provisions of this section the Secretary is directed to conduct research and development of low-cost instrumentation techniques to determine the quantity and quality of air pollution emissions; make use of existing Federal laboratories; establish and operate facilities to carry out the research; acquire property and rights by various means, and cooperate and participate in the development of foreign and domestic projects.

Grants awarded under this provision are to be limited to $1,500,000 and 75 percent of the cost of the project. The bill authorizes $100 million for the fiscal year ending June 30, 1968; $125 million for the fiscal year ending June 30, 1969; and $150 million for the fiscal year

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ending June 30, 1970. The authorizations under this section are

in addition to those to carry out the provisions of all other sections of the bill under section 309.

Sec. 105. Grants for Support of Air Pollution Planning and Control Programs

This section amends section 104 of the act, by expanding the authority of the Secretary to make grants to air pollution control agencies and planning commissions for planning costs.

This section now authorizes grants to air pollution control agencies in support of the cost of planning, developing, establishing, or improving programs for the prevention and control of air pollution. The amounts authorized to be allocated for such grants may not exceed 20 percent of the total appropriations for all purposes under the act. Grants are authorized to be made, under such terms and conditions as the Secretary finds necessary, in amounts to two-thirds of the eligible program costs, except that in the case of grants to intermunicipal or interstate agencies, the grants may be up to three-fourths of eligible program costs.

Revision of grant restrictions has been amended to read that:

> "No agency shall receive any grant under this section with 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, *or* other non-Federal funds that would in the absence of such grant be made available for the maintenance of such program. And the grant will in no event supplant such State, local, *or* other non-Federal funds."

Federal support of interstate agencies or commissions up to 100 percent of the air quality planning program costs are covered under new section 106.

The purposes of section 195 of the act are unchanged by S. 780 and where clearly expressed in Senate Report 88–638 (p. 5):

> "The objective of the grant program is to provide impetus to the establishment and improvement of air pollution prevention and control programs in the States and local communities but not to provide a substitute for State and local funds.
>
> "By 'financial need' of an agency, the committee intends that more than mere budgetary limitations of the agency be considered. The capability of the community or communities supporting the agency, taking into account such factors as financial resources, bonding limitations, per capita income,

market values of property, and other relevant factors, should guide the Secretary's decisions. For example, if two communities, each having an air pollution control agency, possess approximately the same tax resources, per capita income, and market valuation of properties within their corporate limits, and have the same bonding limitations, preference would be indicated in the case of the agency supported by a community which has bonded itself to the maximum, as against the agency supported by a community which has not done so.

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"The funds authorized to be appropriated for this purpose together with the formula and matching provisions of the bill, should operate, in the committee's opinion, to encourage local effort in financing new or expanded programs, or the improvement of existing programs. The committee would expect the regulations of the Department with respect to the grant program to be designed to carry out this objective.

"The committee believes that the primary responsibility for the prevention and control of air pollution should remain with the State and local governments and accordingly is convinced that the stimulation provided by the grant program will help to expand the local programs. The committee urges that the funds allocated be utilized to expand and initiate local research and control programs.

"Under the provisions of the bill, the Secretary would be authorized to make grants directly to local air pollution control agencies without prior State approval. The committee would expect, however, that in the administration of this program, the Department will take precautions to insure that a grant will be made only after appropriate consideration has been given to the views of the State air pollution control authority (where such a State authority exists) with respect to the particular program for which a grant is sought. This procedure would assure, to a greater degree, that the objective of a planned and coordinated statewide program would be achieved most efficiently and economically."

Sec. 106. Interstate Air Quality Agencies or Commissions

Under subsection (a) of this new section the Secretary is authorized to make grants, for 2 years, to defray up to 100 percent of the planning costs of any interstate agency. The agency must

be designated by the Governors of the affected States for the purpose of expediting the establishment of air quality standards for interstate air quality control regions designated pursuant to new section 107(a)(2).

Under subsection (b) of this new section the Secretary has the authority to designate or establish an Air Quality Planning Commission for the purpose of developing recommended regulations for an interstate air quality control region whenever he deems it necessary to expedite the establishment of standards. In this case the Secretary designates the Chairman, provides the staff, and pays the associated expenses.

Sec. 107. Air Quality Control Regions, Criteria and Control Techniques

This new section requires the Secretary to issue to Governors the information required for the establishment of air quality standards and a plan for their implementation. The issuance of such information is precedent to the adoption of State standards under new section 108.

Subsection (a) requires the Secretary to define atmospheric areas of the Nation, considering those parameters which affect atmospheric interchange and diffusion of pollutants. In the establishment of such atmospheric areas parameters such as climate, meteorology, and topography are to be considered.

The Secretary is further required to define those air quality control regions he deems necessary for the establishment of air quality standards to protect public health and welfare. Such air quality control areas shall be defined on the basis of jurisdictional boundaries,

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up to two-thirds of the elegible program costs, except that in the urban-industrial concentrations, and other factors including atmospheric regions necessary to provide adequate implementation of air quality standards, and after consultation with appropriate State and local authorities.

Subsection (b) expands the provision of subsection 103(c)(2) of the act which authorizes the Secretary, after consultation with appropriate advisory committees and Federal departments and agencies, to compile and issue for informational purposes criteria relating to air pollutants which may be harmful to public health or welfare. Criteria issued shall reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable

effects on health and welfare of an air pollution agent, or combination of agents in the ambient air. At the same time the criteria must include those factors which may result in a synergistic effect on public health and welfare as a result of any air pollution agent or combination of agents. Criteria issued pursuant to this subsection will be the basis for air quality standards established pursuant to new section 108. Criteria issued prior to these amendments are to be reevaluated, and if necessary modified and reissued.

Under subsection (c) the Secretary is required to issue information on those recommended pollution control techniques to the States and appropriate air pollution control agencies. Before issuance of such information the Secretary is directed to consult with appropriate advisory committees, the Department of Commerce, and other Federal departments and agencies. The information issued is to include the latest technical data on the technological and economic feasibility of alternative methods of emission control including a cost effectiveness analysis.

Subsection (d) provides for the revision of the ambient air quality criteria and emission control requirements issued pursuant to this section.

Sec. 108. Air Quality Standards and Abatement of Air Pollution

This section amends section 105 of the act by adding a new subsection (c) providing for the establishment by the States of ambient air quality standards and a plan for their enforcement and implementation.

Paragraph (1) requires the Governor of a State to file a letter of intent, adopt air quality standards, and adopt a plan for their implementation and enforcement, all within 15 months.

Approval by the Secretary of the State standards and plan is to be contingent upon whether (1) the State standards are consistent with the air quality criteria and the recommended control techniques issued by him under section 107; (2) the State plan is consistent with the purposes of the act and assures achieving the air quality standards within a reasonable time; and (3) that a means of enforcement by State action is provided, including imminent danger authority comparable to new subsection (k).

Paragraph (2) provides the Secretary with authority to set standards where a State fails to establish standards, or the Secretary finds it necessary to carry out the purpose of the act. The Secretary is authorized to prepare regulations setting forth air quality standards for a control region, after reasonable notice and

a conference of agencies and industries involved. The State has 6 months from the date the Secretary publishes such regulations to adopt standards (satis-

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factory to the Secretary) or to file a petition for public hearing under paragraph (3). If neither is done, the Secretary is required to promulgate such standards.

Paragraph (3) provides that within 30 days after the Secretary has promulgated standards (above), or at any earlier time, the Governor of any State affected by the standards may petition the Secretary for a hearing. The standards hearing board and procedure is similar to the abatement hearing board and procedure provided by the act, including a requirement of 30 days' notice. The standards approved by the hearing board if unchanged take effect upon receipt by the Secretary, or if modified by the hearing board upon promulgation by the Secretary of revised regulations.

Paragraph (4) authorizes the Secretary to abate any violation of air quality standards, whenever he finds that (A) the ambient air quality of a control region is below the standards established, and (B) that the State has failed to enforce such standards. The Secretary must notify State, alleged violators, and other interested parties 180 days before initiating abatement action under (g). Court to give consideration to the practicability, technological and economic feasibility of complying with the standards.

Paragraph (5) provides for the protection of trade secrets.

Paragraph (6) provides for a maintenance of existing conference and enforcement procedure during the time period when standards are being developed.

No change was made in subsection (c) (1) of the act other than its redesignation as subsection (d) (1). The provisions of subsection (d) (1) were previously stated as:

> "* * * establishes the procedure for the initiation of a conference on an air pollution problem when there is interstate pollution involved. * * * establishes procedures for the initiation of a conference in the case of an intrastate air pollution problem. * * * authorizes the Secretary, after consultation with State officials, to call a conference in the case of interstate air pollution on his own initiative.
>
> The Secretary must invite the cooperation of any municipal, State, or interstate air pollution control agencies to participate in the making of any surveys or studies forming the basis of conference action. This is to allow the agencies to

know what is being done in their area, but failure to accept the invitation should not deter the Secretary from acting (S. Rept. No. 88-638, p. 9)."

Subsection (c) (2) of the act was redesignated subsection (d) (2) was revised to require the Secretary to deliver to agencies and make available to interested parties, at least 30 days prior to conference, a Federal report including data and conclusions or findings, if any. Three weeks notice changed to 30 days notice, including newspaper publication. Chairman of conference is required to give interested parties opportunity to present views with respect to Federal report. Secretary to provide that a transcript of the proceedings be made available to any participant.

Subsection (c) (3) of the act was redesignated subsection (d) (3), and subsection (d) through (i) of the act where redesignated subsections (e) through (j), and appropriate cross references changed accordingly. The provisions of these sections include:

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"After the conference the Secretary must allow at least 6 months for any remedial action; if remedial action is not taken, he may call a public hearing before a hearing board appointed by him after notice to the interested parties. The hearing board, after the hearing, may recommend to the Secretary measures to secure abatement of the pollution and the Secretary shall send such recommendations to the interested parties together with a notice specifying a reasonable time (but not less than 6 months) to secure abatement of the air pollution. If, after the expiration of the time set by the Secretary to secure abatement, such abatement measures have not been taken, the Secretary, in the case of intrastate pollution, may with the written consent of the Governor request the Attorney General to bring suit on behalf of the United States to secure abatement. In the case of interstate air pollution the Secretary may request the Attorney General to bring a suit on behalf of the United States to secure abatement.

"This section also authorizes the Secretary, in connection with any conference called, to require any person whose activities result in causing or contributing to air pollution to file a report with respect to character, kind, and quantities of pollutants discharged and the use by such person of various devices and means to prevent or reduce that pollution. After the conference has been held with respect to such pollution

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the Secretary shall require such reports from the person whose activities result in such pollution only to the extent recommended by such conference. No person would be required in such report to divulge trade secrets or secret processes and all information is to be considered confidential for the purposes of title 18, United States Code, section 1905. Failure to file such a report subjects the person in default to forfeit $100 a day to the United States to be recoverable in a civil action. The Secretary may remit or mitigate any such forefeiture (S. Rept. No. 638, p. 9)."

A new subsection (k) authorizes Secretary, upon receipt of evidence of imminent and substantial endangerment to health, and finding State or local authorities have not acted, to request Attorney General to seek injunctions to stop emission of contaminants or to take such other action as may be necessary.

Sec. 109. Standards to Achieve Higher Level of Air Quality

The new section assures that States, localities, intermunicipal, or interstate agencies may adopt standards and plans to achieve a higher level of ambient air quality than approved by the Secretary.

Sec. 110. President's Air Quality Advisory Board and Advisory Committees

This section replaces section 106 of the act titled "Automotive Vehicles and Fuel Pollution." Provisions of act which provide for the Secretary to encourage development of devices and fuels to control automotive air pollution, and required semiannual report to Congress are incorporated within new sections 104 and 306, respectively.

The new section 110 establishes the President's Air Quality Advisory Board in HEW, composed of Secretary or designee and 15

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members appointed by President, none Federal, from State, interstate and local agencies, of public or private interests contributing to, affected by, or concerned with air pollution, and others. The Board is to advise and consult with Secretary on policy under the act, and make recommendations to President.

This new section also authorizes the Secretary to establish advisory committees from time to time to help develop criteria, recommended control techniques, standards, research and development, and to encourage efforts on the part of industry.

Sec. 111. Cooperation by Federal Agencies To Control Air Pollution From Federal Facilities

No changes were made in this section which was section 107 of the act. The purpose of this section was spelled out in Senate Report No. 88-638 (p. 11):

> "This section requires all Federal departments and agencies to cooperate with the Department of Health, Education, and Welfare and with air pollution agencies in controlling air pollution discharges from any Federal building, installation, or property. Further, the Secretary is authorized to establish classes of potential pollution sources for which any Federal department or agency would be required to obtain a permit from the Secretary before discharging any matter into the air. The Secretary is required to report each January to the Congress the status of such permits and compliance with this provision.
>
> "The cooperation of Federal departments and agencies in controlling the discharge of air pollutants from buildings, installations, or other property over which they have jurisdiction has not been equal to the leadership role in air pollution control rightfully contemplated for the Federal establishment. Accordingly, the committee has provided for a permit system, to be administered by the Secretary of Health, Education, and Welfare, which will assure effective cooperation in the control of pollution from these installations."

TITLE II—SHORT TITLE

Section 201

The title was redesignated the "National Emission Standards Act" to reflect the incorporation in this title of all sections of the act and bill concerned with national emission standards.

Sec. 202. Establishment of Standards

No change in this section of act.

The intent of this provision was appropriately expressed in Senate Report 89-192 (p. 10):

> New section 202 would direct the Secretary of Health, Education, and Welfare, by regulation, giving appropriate consideration to technological feasibility and economic costs, to prescribe standards, requirements, or limitations applicable to the emissions of any kind of substance, from any class or classes of new motor vehicles or new motor vehicle engines,

which in his judgment cause or contribute to, or are accessible as in the case of gasoline-powered engines. Likewise, it would be difficult, at this time, to establish a single

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national standard. However, it is the belief of the committee that criteria can be established for groups of diesel-powered vehicles. The committee strongly urges that the joint industry-Government technical committee authorized by the Clean Air Act, and further expanded in the bill to include representatives of the diesel-powered vehicle industry, make a concerted effort to determine the extent, effect, and ways and means of controlling detrimental and offensive emissions from diesel-powered vehicles.

The committee has made no provision for the periodic inspection of vehicles to insure their proper operation and maintenance of emission control facilities because of the many variations in State procedures and the lack of suitable testing equipment for large-scale inspection. However, it does feel strongly that the Department of Health, Education, and Welfare should work with the various States in developing equipment for making rapid checks of operating characteristics of control systems and in developing inspection procedures.

Sec. 203. Prohibited Acts

No change in this section of act.

Sec. 204. Injunction Procedure

No change in this section of act.

Sec. 205. Penalties

No change in this section of act.

Sec. 206. Certification

No change in this section of act.

Sec. 207. Records and Reports

No change in this section of act.

Sec. 208. State Standards

This new section provides Federal preemption of the right to set standards on emissions from new motor vehicles and engines.

Requires the Secretary to waive Federal standards, after notice and opportunity for public hearing, to any State which shall have adopted standards—other than crankcase emission standards prior to Federal entrance into the field. Secretary can veto waiver if extraordinary conditions do not exist or if the standards are inconsistent with provisions of section 202(a).

It is further provided that any State or political subdivision has the right to control, regulate, or restrict the use, operation, or movement of registered or licensed motor vehicles.

Sec. 209. Federal Assistance in Developing Inspection Programs

This new section provides assistance to State inspection programs by authorizing grants to State air pollution control agencies for two-thirds cost of developing uniform motor vehicle emission device inspection and emission testing programs. Secretary of Transportation must certify program consistent with any inspection program established pursuant to the Highway Safety Act.

Sec. 210. Registration of Fuel Additives

This new section provides for the registration of fuel additives. Secretary authorized to designate any fuel for registration. Fuel manu-

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facturer must notify Secretary of additives used, their range of concentration, and purpose. Civil penalties of $1,000 a day for delivery of unregistered designated fuel.

Sec. 211. National Emissions Standards Study

This new section requires the Secretary to submit to Congress within 2 years a comprehensive report on the need for and effect of national emission standards for stationary sources.

Sec. 212. Definitions

No changes in this section of act other than to designate the sections of this title to which the definition of manufacture is restricted.

TITLE III—GENERAL

Section 301. Administration

This section of the act was unchanged.

In the language of Senate Report 88–638 (p. 11):

> This section contains the usual provisions with respect to

the administration of the legislation. Specifically, this section authorizes the Secretary to prescribe necessary regulations to carry out its functions. Further, personnel of the Public Health Service may be detailed, upon request, to an air pollution control agency to carry out the provisions of the act. Finally, the Secretary is authorized to make payments under grants in installments, in advance, or by way of reimbursement.

The committee considers these authorities desirable and necessary for effective administration of the act.

Sec. 302. Definition

This section was amended by adding a definition for "regional air pollution control agency or planning commission." Other definitions unchanged.

Sec. 303. Other Authority Not Affected

No change.

In the language of Senate Report 88–638 (pp. 11–12):

> Subsection (a) provides that the act shall not be construed as superseding or limiting the responsibilities and authorities of the Secretary of Health, Education, and Welfare or of any other Federal officer, department, or agency under any provision of law, except to the extent provided in subsection (b) of this section 10.
>
> Subsection (b) prohibits any appropriation from being authorized or made under sections 301, 311, and 314(c) of the Public Health Service Act for the fiscal year beginning July 1, 1964, and for any subsequent fiscal year, for any purpose for which appropriations may be made under authority of this act. The purpose of this subsection is to insure that this act will become the basic authority for appropriations by the Federal Government for all air pollution programs. In the case of programs which may be peripherally concerned with air pollution, the committee does not intend that bookkeeping requirements be established to allocate to the penny on a strict cost-accounting basis the air pollution aspects of

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> those programs, but it does intend that this legislation become the authority for appropriations for all air pollution programs, in order that the legislative committees of Congress may have, to an extent which they presently do not have, a

fuller understanding and control of the true cost to the Federal Government of these air pollution programs.

Sec. 304. Records and Audit

No change.

In the language of Senate Report 88–638 (p. 12):

> This section authorizes the Secretary to prescribe keeping records which would disclose the amount and disposition of the proceeds of Federal assistance received, the amount received from other sources, and such other records as will facilitate an effective audit.
>
> Finally, the Secretary and the Comptroller General or their representatives are authorized access for the purpose of audit and examination to any books, records, and other documents pertinent to the grants received under the act.
>
> In view of the expansion of the grant programs, the committee believes it would be appropriate that a system of audits be provided to assure that grant funds are used for the purpose intended. Accordingly, provisions to accomplish this have been included.

Sec. 305. Comprehensive Economic Cost Studies

New section which requires the Secretary to submit a report to Congress by January 10, 1969, and annually thereafter.

Provisions include—

(1) A detailed estimate of cost of carrying out this act,

(2) A comprehensive study of cost of program implementation by affected units of government (each of above for 5 fiscal years beginning July 1, 1969), and

(3) A comprehensive study of economic impact of air quality standards on the Nation's industries, communities, and other pollution sources, including an analysis of national requirements for and cost of controlling emissions to the standards established under the act.

Secretary also required to make complete investigation of need for additional trained personnel, and report by July 1, 1969.

Sec. 306. Additional Reports to Congress

New section which requires annual reports to Congress on progress in 10 fields authorized by the act.

Sec. 307. Separability

No change.

Sec. 308. Appropriation

This section authorizes appropriations, excluding sections 103 (d), (general authority for Secretary to construct, staff, and equip facilities), and 104 (research relating to fuels and vehicles), of up to $75 million for the fiscal year 1968, $100 million for the fiscal year 1969, and $150 million for the fiscal year ending June 30, 1970.

Sec. 309. Short Title

No change.

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VIII. COMPARISON WITH EXISTING PROVISIONS OF THE LAW

TITLE I—AIR POLLUTION PREVENTION CONTROL

FINDING AND PURPOSES

CLEAN AIR ACT	S. 780
SEC. 101.	Revises subsection (b)(1) as to the purpose of this title "to protect *and enhance the quality of* the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population.

COOPERATIVE ACTIVITIES AND UNIFORM LAWS

SEC. 102.	No change.
SEC. 103.	Subsection (a) (4) and (5) of Act are deleted and included under new *Section 104*, dealing with research in the prevention and control of air pollution resulting from the combustion of fuels. Subsections 103(c) (2) and (3) are deleted and included in new *Section 105*, dealing with the issuance of criteria of ambient air quality and emission control techniques.
	Research Relating to Fuels and Vehicles
(NOTE.—Deleted subsections (c) (2) and (3) of Act authorize Secretary to conduct research on vehicle emission control and reduction in emission of oxides of sulfur. New *Section 104* represents an expansion of former provisions.)	*Sec. 104.(a) Secretary of HEW to give special emphasis to research into methods to control pollution resulting from the combustion fuels. Provides for grants or contracts to public and private organizations for research, development or demonstration.* *(c) Limits Federal grants to $1.5 million or 75 percentum of project cost.* *(d) Authorizes for purpose of this section $100, $125 and $150 million*

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	for fiscal years 1968, 1969, and 1970, respectively. (NOTE.—This is in addition to funds authorized for all other sections of the act under *Section 308*.)

GRANTS FOR SUPPORT OF AIR POLLUTION PLANNING AND CONTROL PROGRAMS

SEC. 104. (a) Authorizes Secretary to make grants up to one-half the cost of developing and maintaining agency programs, and up to three-fifths cost of maintaining regional air pollution control programs.

Sec. 105. (a) Authorizes the Secretary to make grants up to one-half the cost of *planning,* developing and maintaining agency programs, and up to three-fifths cost of maintaining regional air pollution control programs.

Regional Air Quality Planning Agencies or Commissions

Sec. 106. (a) For interstate air quality control regions designated pursuant to Section 107(a)(2), the Secretary may, for up to two years, authorize 100 percentum of air quality planning program costs. (b) When the Secretary deems it necessary, pursuant to Section 108(c)(2), he may establish an air quality planning commission for the purpose of recommending standards of air quality.

Air Quality Control Regions, Criteria and Control Techniques

Sec. 107. (a)(1) Secretary shall define atmospheric areas of the Nation, considering those parameters which affect atmospheric interchange and diffusion of pollutants.

(2) As he deems necessary the Secretary shall designate air quality control regions for the purpose of establishing ambient air quality standards pursuant to Section 108.

SEC. 103(c) (2) and (3)

(NOTE.—Deleted subsections (c) (2) and (3) of Act authorize Secretary to issue criteria of ambient air quality for a given contaminant or contaminants based upon the latest scientific knowledge of effects on health and welfare. New paragraph 107(a) (2) represents an expansion of former provisions.)

(b) Directs the Secretary to issue criteria of ambient air quality. (Note: Differs from Act only so far *as requiring consultation with appropriate advisory committees and Federal departments and agencies.*)

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(c) Directs Secretary to issue recommended control requirements to achieve various levels of air quality set forth in criteria published pursuant to subsection (b). Requires consultation with appropriate advisory committees and Federal departments and agencies.

(d) Authority to revise ambient air

quality criteria and recommended control techniques issued pursuant to this section.

Air Quality Standards and ABATEMENT OF AIR POLLUTION

SEC. 105. Provides authority for Federal enforcement action to abate air pollution.

Sec. 108. (c)(1) Provides that the Governor of a State, within 90 days of the receipt of ambient air quality criteria and recommended control techniques issued pursuant to this Act, may file a letter of intent to establish, within 180 days, after public hearing air quality standards and within 180 days thereafter establish a plan for their implementation and enforcement. Provides for Secretarial approval of standards and plan as consistent with purposes of Act.

(2) Provides Secretary with means and authority to set standards of air quality where a State does not.

(3) Allows Governor to petition Secretary to hold a hearing in connection with standards promulgated under paragraph (2). Specifies guidelines for such hearing and qualification of members. Secretary to abide by recommendations of hearing board.

(4) Provides Secretary with enforcement authority where State fails.

(5) Protection of trade secrets or secret processes.

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SEC. 105. (c) (2) Requires three weeks notice of conference be given to interested parties.

(d)(2) extends notice period to thirty days and requires a Federal report 30 days prior to conference. Provides that a transcript be maintained of proceedings.

(k) Expands Federal enforcement authority to allow the Secretary to request the Attorney General to immediately enjoin a pollution source where there exists an imminent and substantial endangerment to health.

Standards to Achieve Higher Level of Air Quality

Sec. 109. Allows State of political subdivision to adopt standards and plans to achieve higher air quality than approved by the Secretary.

AUTOMOTIVE VEHICLE AND FUEL POLLUTION

SEC. 106. Provides for Secretary to encourage development of devices and fuels to control automotive air pollution. Requires semi-annual report to Congress. (Note: These provisions are incorporated within new *Sections 104 and 306*, respectively.)

President's Air Quality Advisory Board and Advisory Committees

Sec. 110. (a) Establishes President's Air Quality Advisory Board consisting of Secretary of HEW (Chairman) and 15 other members appointed for three year terms.

(b) Board to advise Secretary on matters of policy relating to activities and functions under Act.

(c) Provides for clerical and technical assistance.

(d) Secretary empowered to establish advisory committees to assist him in the development and implementation of the purposes of Act.

(e) Provides compensation for non-Federal members.

COOPERATION BY FEDERAL AGENCIES TO CONTROL AIR POLLUTION FROM FEDERAL FACILITIES

SEC. 107.

Sec. 111, as redesignated by S. 780. No change.

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TITLE II—*National Emission Standards Act*

SHORT TITLE

CLEAN AIR ACT

S. 780

SEC. 201.

Title amended to read *National Emissions Standards Act* from Motor Vehicle Air Pollution Control Act.

ESTABLISHMENT OF STANDARDS

SEC. 202.

No change.

PROHIBITED ACTS

SEC. 203.

No change.

INJUNCTION PROCEDURE

SEC. 204. No change.

PENALTIES

SEC. 205. No change.

CERTIFICATION

SEC. 206. No change.

RECORDS AND REPORTS

SEC. 207. No change.

State Standards

Sec. 208. (a) Pre-empts State standards for new motor vehicle engines. (b) Authorizes Secretary to waive application of this section, after public hearing, to a State adopting standards for other than crankcases prior to March 30, 1966.

(c) allows State to control, regulate, or restrict the use, operation, or movement of motor vehicles.

Federal Assistance in Developing Inspection Programs

Sec. 209. Authorizes Secretary to make two-third grants to develop uniform motor vehicle emission inspection and testing programs. Secretary of Transportation is required to certify program.

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Registration of Fuel Additives

Sec. 210. (a) Secretary by regulation may designate fuels which must be registered by him before introduction in interstate commerce.

(b) Manufacturer to notify him of fuel additives. Additive manufacturer to notify him as to nature of additive.

(c) Provision for protection of trade secrets.

(d) Provides for civil penalty of $1,000 per day for violation.

DEFINITIONS FOR TITLE II

SEC. 208.

Sec. 211, as redesignated by S. 780. No change.

TITLE III—GENERAL

ADMINISTRATION

SEC. 301.

No change.

DEFINITIONS

SEC. 302.

No change.

OTHER AUTHORITY NOT AFFECTED

SEC. 303.

No change.

RECORDS AND AUDIT

SEC. 304.

No change.

Comprehensive Economic Cost Studies

Sec. 305. (a) Authorizes Secretary to conduct five year economic study of costs of implementation of provisions of Act upon the Nation's economy.

(b) Secretary directed to evaluate government personnel needs to carry out provisions of Act and Federal training program capability to meet needs.

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CLEAN AIR ACT

S. 780

Additional Reports to Congress

Sec. 306. Calls for annual report to Congress on steps taken to implement provisions of Act.

SEPARABILITY

SEC. 305.

Sec. 307, as redesignated by S. 780. No change.

APPROPRIATIONS

SEC. 306.

Sec. 308, as redesignated by S. 780.

Authorization for other than sections 103(d) and 104, of $75, $100, and $150 million for fiscal years 1968, 1969, and 1970, respectively.

SHORT TITLE

SEC. 307.

Sec. 309, as redesignated by S. 780.

No change.

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IX. PENDING QUESTIONS

INCENTIVE ASSISTANCE FOR INDUSTRIES

Once again this year a number of witnesses, especially those representing industry and industrial organizations, discussed the need for various types of tax relief to assist industry in meeting its costs of pollution control, a matter which is not within the jurisdiction of this committee.

Last year when the committee reported the Clean Water Restoration Act the following statement appeared:

> This committee strongly recommends that the appropriate congressional committees give consideration to tax relief proposals for industrial pollution control activities.
>
> For the most part, pollution control does not provide a return on an investment to an industry. Installation of pollution control devices is costly and, in many cases, nonremunerative. The billion dollars of capital investment which will have to be made by the industrial sector for the benefit of the entire society will place a substantial burden on corporate resources, and ultimately on the general public. The committee suggests that there are several alternative methods of aiding industry in meeting its pollution control obligations.

The committee reasserts this position and strongly urges that the appropriate committees of the Congress consider tax relief legislation.

While tax relief legislation is not a matter over which this committee has jurisdiction, two areas which have not as yet been thoroughly explored may be considered in the future.

It has been suggested that the committee give consideration to authorizing a Federal loan program designed to assist industry with the costs of air pollution control. This type of Federal assistance has been utilized to facilitate a number of social programs, the most well known of which is the rural electrification program which provides 2-percent money to assist in supplying power to sparsely populated rural areas.

As rural electrification is a social program designed to enchance the welfare of our rural citizens, the control of pollution is an ever more important welfare requirement of our urban population. The committee intends to review proposals of this type to determine their applicability to this particular situation.

For those plants which due to their age do not justify major capital investment for pollution control and therefore are confronted with potential closure it has been suggested that a limited

Federal grant program be authorized. This type of program could have the salutary effect of limiting undue economic disruption in some of the Nation's older communities while, at the same time, cleaning up the air over those cities.

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It is important that any Federal assistance program, whether it be incentives, loans, or grants, provide adequate assurance that those facilities assisted will be designed to attain maximum performance. Performance requirements should be related to air quality standards and Federal assistance made available on that basis.

ALTERNATIVES TO INTERNAL COMBUSTION

The Subcommittee on Air and Water Pollution and the Committee on Commerce held 5 days of joint hearings on legislation to authorize development of electric vehicles and other alternatives to the internal combustion engine. A great deal of valid information was gained which, because of the interrelationship of the automobile and air pollution, is worthy of comment in the report.

The Federal Government is involved in considerable research into alternatives to the internal combustion engine, including studies bearing on the development of a satisfactory electric vehicle. Under the scope of existing legislation, the Clean Air Act and the research and development mandates of several departments, these research efforts might be expanded to accomplish the aims of S. 451 and S. 453. The present nature of Federal involvement in developing nonpolluting alternatives to internal combustion, as an adjunct to, and resource for, an energetic research and development program by industry, seems best suited to present needs.

The Federal Government has a clear role in protecting the public health and a subsequent interest in the rapid reduction of emissions from vehicular sources, and must give support to efforts in this field. However, as long as private efforts demonstrates sufficient regard for the public interest, the Federal Government must be shy of going beyond its role and influencing markets by the massive infusion of funds into a limited area of endeavor.

Nevertheless, Federal research into batteries, fuel cells, electrical vehicular systems, and other alternative propulsion systems is producing significant results, and these programs might well be extended.

Paradoxically, while the problem is mainly one in the civilian sector, most of this work is presently concentrated in the Depart-

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ment of Defense and its contractors, through their attempts to insure the immediate nonclassified, civilian utilization of the fruits of this research. Greater distribution of projects throughout transportation-conscious departments should be sought. An estimated $20 million has been spent in Federal research on battery and fuel cell development, primarily in NASA and Defense programs.

Within existing legislation, the research efforts now under the Department of Defense and NASA should continue. Additional funding would be valuable for related programs of the Bureau of Mines, the Department of Health, Education, and Welfare, the Department of Housing and Urban Development, and the Department of Commerce. The Bureau of Mines must be concerned not only with its projects to develop catalysts for fuel cells, but with the greater questions of adequate mineral resources for a changing transportation technology. There is a need for the Department of Transportation to undertake studies of the feasibility and effects of various alternative systems of private and mass transportation.

Encouragement should be given to the programs of the Department of Housing and Urban Development which focus on considering

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transportation and the total urban environment in a systems analytic framework. And importantly, the research efforts of the National Center for Air Pollution Control, should be further stimulated and funded in the field of securing low-pollution propulsion systems. HEW now has the authority to build prototype electric uses, for example, and with adequate funding they could engage in this type of project.

There are, in fact, several Federal agencies which under existing legislation could contribute to the development of alternative propulsion systems by making use of prototype vehicle systems. The Post Office Department, which until 1962 was involved in testing electric vehicles adapted to their needs, should reenter this field with the clear aim of supporting solutions to transitional problems. The Post Office has transportation needs suited to the potential of electric vehicles, and in view of the Federal commitment to the reduction of emissions from all Federal sources, would do well to encourage rapid development through creative procurement policies. This is equally true for the General Serv-

ices Administration, whose purchases of automobiles constitute a sizable portion of the market.

The efforts of private industry to develop low-pollution vehicle systems and to accommodate the change from present internal combustion engines are to be commended. While the figures are not completely reliable, a present estimated $9 million per year is being invested in private research efforts, and this figure seems to be increasing. The principal thrust of this research effort is long life, high energy (low weight) battery and fuel cell development, by both large and small companies. The major automobile manufacturers and many smaller firms have been working on total vehicle development, as well as improvement of the internal combustion engine.

The most intense interest has been shown by electric utilities (public and private), who with independent research firms have been planning for increased powers needs and developing innovative hardware for charging. There are firms and municipal planning agencies who have developed striking special use applications for limited low-pollution transportation systems, such as modular programed systems or specially designed and controlled sections of town.

These industry attempts have included proposals of an imaginative sort, ranging from a nickel-cadmium battery-powered bus, possible today and capable of staying in service all day with regenerative braking to external combustion engines of low emission, to steam engines of improved technology, to breakthroughs like the sodium-sulfur battery. These concerted efforts could pay off in an estimated 10 years with the commercial production of electric vehicles satisfactory to the personal transportation market. Sales of electric vehicles, according to estimates from the Federal Power Commission, might reach 1.5 to 2 million per year by 1975 to 1980, and 3 to 4 million by 1985. At that time they would comprise approximately a third of the market.

Since the benefits from developing nonpolluting vehicle systems will be primarily to the public interest, and private industry might be loathe to commit funds in an untried market situation, it is incumbent upon the Federal Government to minimize the market risk. If the Government, in the pursuit of the public interest, should require the production of a nonpolluting substitute for present transportation

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means, it could absorb a portion of the risk by purchasing prototype vehicles meeting its special requirements at unusually high

early costs. The Federal Government might well stimulate competition, facilitating an early solution and more adventurous innovations, by rewarding the designs best meeting its established performance criteria.

The Federal Government has an additional role in providing leadership to State and local authorities. Of great immediate help might be a study of social, legal, and economic alternatives open to State and local authorities in trying to control pollution by the proscription of high-emitting vehicles or the encouragement of the use of low-pollution propulsion systems.

It must be clear above all that the Federal Government, in the name of the American people, is fully committed to restoring the quality of our atmosphere by reducing emissions from vehicles. In an effort to do this, the committee is not bound to any single endeavor but encourages any and all approaches which hold out promise of achieving this end.

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X. INDIVIDUAL VIEWS

INDIVIDUAL VIEWS OF MR. SPONG

This legislation, in my opinion, represents the most practicable approach to the abatement of air pollution that can be made with the technology and scientific data presently available. States and localities are further encouraged to initiate programs to combat this growing threat.

The bill approved by the committee contemplates the preemption by the Federal Government of the right to set emission standards for automobiles. In my judgment, this is necessary. Testimony by many witnesses from urban areas throughout the Nation demonstrated conclusively that a large percentage of air pollution results from motor vehicles. The number of automobiles expected to be on our highways within the next decade is frightening to comprehend.

To subject auto manufacturers to varied requirements by the several States would constitute an economic hardship that ultimately would be passed on to the purchasers of automobiles. We must not delude ourselves into believing that merely by the establishment of national standards for motor vehicles we can effectively combat air pollution.

In the absence of a requirement for the mandatory inspection

of devices installed in automobiles to curb pollution, it becomes the responsibility of the automobile and petroleum industries to develop antipollution devices that are efficient, economical, and durable.

There currently are no low-cost instruments available to measure emission from automobiles, and I would hope that the research grants authorized by the bill will facilitate the development of such instruments. These would be used in States having mandatory periodic inspection requirements for motor vehicles.

It is hoped that the several States will take full advantage of the programs made available to them under this legislation, particularly the disbursal of Federal funds for the encouragement of the inspection of automobiles for antipollution devices.

WILLIAM B. SPONG, Jr.

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XI. CHANGES IN EXISTING LAW

In compliance with subsection (4) of the rule XXIX of the Standing Rules of the Senate, changes in existing law made by the bill as reported are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

THE CLEAN AIR ACT

TITLE I—AIR POLLUTION PREVENTION AND CONTROL

FINDINGS AND PURPOSES

SEC. 101. (a) The Congress finds—

(1) that the predominant part of the Nation's population is located in its rapidly expanding metropolitan and other urban areas, which generally cross the boundary lines of local jurisdictions and often extend into two or more States;

(2) that the growth in the amount and complexity of air pollution brought about by urbanization, industrial development, and the increasing use of motor vehicles, has resulted in mounting dangers to the public health and welfare, includ-

ing injury to agricultural crops and livestock, damage to and the deterioration of property, and hazards to air and ground transportation;

(3) that the prevention and control of air pollution at its source is the primary responsibility of States and local governments; and

(4) 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.

(b) The purposes of this title are—

(1) to protect *and enhance the quality of* the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population;

(2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution;

(3) to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and

(4) to encourage and assist the development and operation of regional air pollution control programs.

COOPERATIVE ACTIVITIES AND UNIFORM LAWS

SEC. 102. (a) The Secretary shall encourage cooperative activities by the States and local governments for the prevention and control of

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air pollution; encourage the enactment of improved and, so far as practicable in the light of varying conditions and needs, uniform State and local laws relating to the prevention and control of air pollution; and encourage the making of agreements and compacts between States for the prevention and control of air pollution.

(b) The Secretary shall cooperate with and encourage cooperative activities by all Federal departments and agencies having functions relating to the prevention and control of air pollution, so as to assure the utilization in the Federal air pollution control program of all appropriate and available facilities and resources within the Federal Government.

(c) The consent of the Congress is hereby given to two or more States to negotiate and enter into agreements or compacts, not in conflict with any law or treaty of the United States, for (1) cooperative effort and mutual assistance for the prevention and control of air pollution and the enforcement of their respective laws relating thereto, and (2) the establishment of such agencies, joint or otherwise, as they may deem desirable for making effective such agreements or compacts. No such agreement or compact shall be binding or obligatory upon any State a party thereto unless and until it has been approved by Congress.

RESEARCH, INVESTIGATIONS, TRAINING, AND OTHER ACTIVITIES

SEC. 103. (a) The Secretary shall establish a national research and development program for the prevention and control of air pollution and as part of such program shall—

(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;

(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;

(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 [;].

[(4) initiate and conduct a program of research directed toward the development of improved, low cost techniques for extracting sulfur from fuels.

[(5) conduct and accelerate research programs (A) relating to the means of controlling hydrocarbon emissions resulting from the evaporation of gasoline in carburetors and fuel tanks, and the means of controlling emissions of oxides of nitrogen and aldehydes from gasoline-powered or diesel-powered vehicles, and to carry out such research the Secretary shall consult with the technical committee established under section 106 of this Act, and for research concerning

diesel powered vehicles he may add to such committee such representatives from the diesel-powered

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vehicle industry as he deems appropriate; and (B) directed toward the development of improved low-cost techniques designed to reduce emissions of oxides of sulfur produced by the combustion of sulfur containing fuels." ; and]

(b) In carrying out the provisions of the preceding subsection the Secretary is authorized to—

(1) collect and make available, through publications and other appropriate means, the results of and other information, including appropriate recommendations by him in connection therewith, pertaining to such research and other activities;

(2) cooperate with other Federal departments and agencies, with air pollution control agencies, with other public and private agencies, institutions, and organizations, and with any industries involved, in the preparation and conduct of such research and other activities;

(3) make grants to air pollution control agencies, to other public or nonprofit private agencies, institutions, and organizations, and to individuals, for purposes stated in subsection (a) (1) of this section;

(4) contract with public or private agencies, institutions, and organizations, and with individuals, without regard to sections 3648 and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5);

(5) provide training for, and make training grants to, personnel of air pollution control agencies and other persons with suitable qualifications;

(6) establish and maintain research fellowships, in the Department of Health, Education, and Welfare and at public or nonprofit private educational institutions or research organizations;

(7) collect and disseminate, in cooperation with other Federal departments and agencies, and with other public or private agencies, institutions, and organizations having related responsibilities, basic data on chemical, physical, and biological effects of varying air quality and other information pertaining to air pollution and the prevention and control thereof; and

(8) develop effective and practical processes, methods, and

prototype devices for the prevention or control of air pollution.

(c) [(1)] In carrying out the provisions of subsection (a) of this section the Secretary shall conduct research on, and survey the results of other scientific studies on, the harmful effects on the health or welfare of persons by the various known air pollution agents (or combinations of agents).

[(2) Whenever he determines that there is a particular air pollution agent (or combination of agents), present in the air in certain quantities, producing effects harmful to the health or welfare of persons, the Secretary shall compile and publish criteria reflecting accurately the latest scientific knowledge useful in indicating the kind and extent of such effects which may be expected from the presence of such air pollution agent (or combination of agents) in the air in varying quantities. Any such criteria shall be published for informational purposes and made available to municipal, State, and interstate air pollution control agencies. He shall revise and add to such criteria whenever necessary to reflect accurately developing scientific knowledge.

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[(3) The Secretary may recommend to such air pollution control agencies and to other appropriate organizations such criteria of air quality as in his judgment may be necessary to protect the public health and welfare.]

(d) The Secretary is authorized to construct such facilities and staff and equip them as he determines to be necessary to carry out his functions under this Act.

(e) If, in the judgment of the Secretary, an air pollution problem of substantial significance may result from discharge or discharges into the atmosphere, he may call a conference concerning this potential air pollution problem to be held in or near one or more of the places where such discharge or discharges are occurring or will occur. All interested persons shall be given an opportunity to be heard at such conference, either orally or in writing, and shall be permitted to appear in person or by representative in accordance with procedures prescribed by the Secretary. If the Secretary finds, on the basis of the evidence presented at such conference, that the discharge or discharges if permitted to take place or continue are likely to cause or contribute to air pollution subject to abatement under section [105] *108*(a), he shall send such findings, together with recommendations concerning the measures which he finds reasonable and suitable to prevent such

pollution, to the person or persons whose actions will result in the discharge or discharges involved; to air pollution agencies of the State or States and of the municipality or municipalities where such discharge or discharges will originate; and to the interstate air pollution control agency, if any, in the jurisdictional area of which any such municipality is located. Such findings and recommendations shall be advisory only, but shall be admitted, together with the record of the conference, as part of the record of proceedings under subsections [(c), (d), and (e) of section 105] *(d), (e), and (f) of section 108.*

RESEARCH RELATING TO FUELS AND VEHICLES

Sec. 104. (a) The Secretary shall give special emphasis to research and development into new and improved methods, having industrywide application, for the prevention and control of air pollution resulting from the combustion of fuels. In furtherance of such research and development he shall—

(1) conduct and accelerate research programs directed toward development of improved, low-cost techniques for control of combustion byproducts of fuels, for removal of potential pollutants from fuels, and for control of emissions from evaporation of fuels;

(2) provide for Federal grants to or contract with public or private agencies, institutions, or persons for payment of (A) part of the cost of acquiring, constructing, or otherwise securing, for research and development purposes, new or improved devices or methods having industrywide application of preventing or controlling discharges into the air of various types of pollutants; and (B) carrying out the other provisions of this section, without regard to sections 3648 and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5): Provided, That research or demonstration contracts awarded pursuant to this subsection (including contracts for construction) may be made in accordance with, and subject to the limitations provided with respect to research contracts of the military departments in, section 2353 of

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title 10, United States Code, except that the determination, approval, and certification required thereby shall be made by the Secretary.

(3) determine, by laboratory and pilot plant testing, the results of air pollution research and studies in order to devel-

op new or improved processes and plant designs to the point where they can be demonstrated on a large and practical scale;

(4) construct, operate, and maintain, or assist in meeting the cost of the construction, operation, and maintenance of new or improved demonstration plants or processes which have promise of accomplishing the purposes of this Act;

(5) study new or improved methods for the recovery and marketing of commercially valuable byproducts resulting from the removal of pollutants; and

(6) 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.

(b) In carrying out the provisions of this section, the Secretary may—

(1) conduct and accelerate research and development of low-cost instrumentation techniques to facilitate determination of quantity and quality of air pollutant emissions, including, but not limited to, automotive emissions;

(2) utilize, on a reimbursable basis, the facilities of existing Federal scientific laboratories;

(3) establish and operate necessary facilities and test sites at which to carry on the research, testing, development, and programing necessary to effectuate the purposes of this section;

(4) acquire secret processes, technical data, inventions, patent applications, patents, licenses, and an interest in lands, plants, and facilities, and other property or rights by purchase, license, lease, or donation; and

(5) cause on-site inspections to be made of promising domestic and foreign projects, and cooperate and participate in their development in instances in which the purposes of the Act will be served thereby.

(c) Federal payments under subsection (a) (2) of this section shall be subject to the following limitations:

(1) no grant shall be made in excess of $1,500,000; and

(2) no grant shall be made for more than 75 per centum of the cost of the project.

(d) For the purposes of this section there are authorized to be appropriated for the fiscal year ending June 30, 1968, $100,000,000; for the fiscal year ending June 30, 1969, $125,000,000; and for the fiscal year ending June 30, 1970, $150,000,000. Amounts

appropriated pursuant to this subsection shall remain available until expended.

GRANTS FOR SUPPORT OF AIR POLLUTION *Planning and* CONTROL PROGRAMS

[SEC. 104. (a) The Secretary is authorized to make grants to air pollution control agencies in an amount up to two-thirds of the cost of developing, establishing, or improving, and grants to such agencies in an amount up to one-half of the cost of maintaining, programs for the prevention and control of air pollution: *Provided,* That the Secretary is authorized to make grants to intermunicipal or interstate air

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pollution control agencies (described in section 302(b)(2) and (4)) in an amount up to three-fourths of the cost of developing, establishing, or improving, and up to three-fifths of the cost of maintaining, regional air pollution control programs. As used in this subsection, the term "regional air pollution control program" means a program for the prevention and control of air pollution in an area that includes the areas of two or more municipalities, whether in the same or different States.]

Sec. 105. (a)(1) The Secretary is authorized to make grants to air pollution control agencies and planning commissions, in an amount up to two-thirds of the cost of planning, developing, establishing, or improving, and grants to such agencies in an amount up to one-half of the cost of maintaining, programs for the prevention and control of air pollution and the implementation of the air quality standards program as authorized by this Act: Provided, That the Secretary is authorized to make grants to intermunicipal or interstate air pollution control agencies (described in section 302(b)(2) and (4)) in an amount up to three-fourths of the cost of planning, developing, establishing, or improving and up to three-fifths of the cost of maintaining, regional air quality control programs, including but not limited to interstate commissions approved by the Congress pursuant to section 102(c): Provided, That the Secretary is authorized to make grants up to 100 per centum pursuant to section 106(a). As used in this subsection the term "regional air quality control program" means a program for the prevention and control of air pollution and the implementation of air quality standards programs as authorized by this Act, in an area that includes the areas of two or more municipalities whether in the same or different States.

(2) Prior to the approval of any grant to any regional air pollution control agency or planning commission pursuant to this subsection, the Secretary shall receive assurances that such agency or commission provides for adequate representation of appropriate State, interstate, local, and (when appropriate) international, interest in the air quality control region.

(3) Prior to the approval of any planning grant to any regional air pollution control agency or planning commission pursuant to this section, the Secretary shall receive assurances that such agency or commission has the capability of developing a comprehensive air quality plan for the air quality control region, which plans include (when appropriate) a recommended system of alerts to avert and reduce the risk of situations in which there may be imminent and serious danger to the public health or welfare from air pollutants and 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.

(b) From the sums available for the purposes of subsection (a) of this section for any fiscal year, the Secretary shall from time to time make grants to air pollution control agencies upon such terms and conditions as the Secretary may find necessary to carry out the purpose of this section. In establishing regulations for the granting of such funds the Secretary shall, so far as practicable, give due consideration to (1) the population, (2) the extent of the actual or potential air pollution problem, and (3) the financial need of the respective agencies. No agency shall receive any grant under this section during any fiscal year when its expenditures of non-Federal funds for other than nonrecurrent expenditures for air pollution control programs will be less than its expenditures were for such programs during the

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preceding fiscal year; and no agency shall receive any grant under this section with 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] *or* 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] *or* other non-Federal funds. No grant shall be made under this section until

the Secretary has consulted with the appropriate official as designated by the Governor or Governors of the State or States affected.

(c) Not more than 12½ per centum of the total of funds appropriated or allocated for the purposes of subsection (a) of this section shall be granted for air pollution control programs in any one State. In the case of a grant for a program in an area crossing State boundaries, the Secretary shall determine the portion of such grant that is chargeable to the percentage limitation under this subsection for each State into which such area extends.

Interstate Air Quality Agencies or Commissions

Sec. 106. (a) For the purpose of expediting the establishment of air quality standards in an interstate air quality control region designated pursuant to section 107 (a) (2), the Secretary is authorized to pay, for two years, up to 100 per centum of the air quality planning program costs of any agency designated by the Governors of the affected States, which agency shall be capable of recommending to the Governors standards of air quality and plans for implementation thereof and shall include representation from the States and appropriate political subdivisions within the air quality control region. After the initial two-year period the Secretary is authorized to make grants to such agency pursuant to section 105.

(b) (1) Whenever the Secretary deems it necessary to expedite the establishment of standards for an interstate air quality control region designated pursuant to section 108 (c) (2) he may, after consultation with the Governors of the affected States, designate or establish an air quality planning commission for the purpose of developing recommended regulations setting forth standards of air quality to be applicable to such air quality control region.

(2) Such Commission shall consist of the Secretary or his designee who shall serve as Chairman, and adequate representation of appropriate State, interstate, local and (when appropriate), international, interests in the designated air quality control region.

(3) The Secretary shall, within available funds, provide such staff for such Commission as may be necessary to enable it to carry out its functions effectively, and shall pay the other expenses of the Commission; and may also accept for the use by such Commission, funds, property, or services contributed by the State involved or political subdivisions thereof.

(4) Each appointee from a State, other than an official or employee thereof, or of any political subdivision thereof, shall, while engaged in the work of the Commission, receive compensation at

a rate fixed by the Secretary, but not in excess of $100 per diem, including traveltime, and while away from his home or regular place of business, he may be allowed travel expenses, including per diem in lieu of subsistence, as authorized

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by law (5 U.S.C. 3109) for persons in the Government service employed intermittently.

Air Quality Control Regions, Criteria, and Control Techniques

Sec. 107 (a)(1) The Secretary shall, as soon as practicable, define for the purposes of this Act, atmospheric areas of the Nation on the basis of those conditions, including, but not limited to, climate, meteorology, and topography, which affect the interchange and diffusion of pollutants in the atmosphere.

(2) The Secretary, after consultation with appropriate State and local authorities, shall, from time to time as he deems necessary to protect the public health and welfare, for the purpose of establishing ambient air quality standards pursuant to section 108, and for administrative and other purposes, designate air quality control regions based on jurisdictional boundaries, urban-industrial concentrations, and other factors including atmospheric areas necessary to provide adequate implementation of air quality standards. The Secretary shall immediately notify the Governor or Governors of the affected State or States of such designation.

(b) (1) The Secretary shall, after consultation with appropriate advisory committees and Federal departments and agencies, from time to time, but as soon as practicable, develop and issue to the States such criteria of air quality as in his judgment may be requisite for the protection of the public health and welfare: Provided, That any criteria issued prior to enactment of this section shall be reevaluated in accordance with the consultation procedure and other provisions of this section and, if necessary, modified and reissued. Such issuance shall be announced in the Federal Register and copies shall be made available to the general public.

(2) Such criteria shall accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on health and welfare which may be expected from the presence of an air pollution agent, or combination of agents in the ambient air, in varying quantities.

(3) Such criteria shall include those variable factors which of themselves or in combination with other factors may alter the

effects on public health and welfare of any subject agent or combination of agents, including, but not limited to, atmospheric conditions, and the types of air pollution agent or agents which, when present in the atmosphere, may interact with such subject agent or agents, to produce an adverse effect on public health and welfare.

(c) The Secretary shall, after consultation with appropriate advisory committees and Federal departments and agencies, issue to the States and appropriate air pollution control agencies information on those recommended pollution control techniques the application of which is necessary to achieve levels of air quality set forth in criteria issued pursuant to subsection (b), including those criteria subject to the proviso in subsection (b) (1), which information shall include technical data relating to the technology and costs of emission control. Such recommendations shall include such data as are available on the latest available technology and economic feasibility of alternative methods of prevention and control of air contamination including cost-effectiveness analyses. Such issuance shall be announced in the Federal Register and copies shall be made available to the general public.

(d) The Secretary shall, from time to time, revise and reissue material issued pursuant to subsections (b) and (c) in accordance with procedures established in such subsections.

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Air Quality Standards and Abatement of Air Pollution

SEC. [105] *108.* (a) The pollution of the 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.

(b) Consistent with the policy declaration of this title, municipal, State, and interstate action to abate air pollution shall be encouraged and shall not be displaced by Federal enforcement action except as otherwise provided by or pursuant to a court order under [subsection (g)] *subsections (c), (h), or (k).*

(c) (1) If, after receiving any air quality criteria and recommended control techniques issued pursuant to section 107, the Governor of a State, within ninety days of such receipt, files a letter of intent that such State will within one hundred and eighty days, and from time to time thereafter, adopt, after public hearings, ambient air quality standards applicable to any designated air quality control region or portions thereof within such State, and within one hundred and eighty days thereafter, and from time to time as may be necessary, adopts a plan for the implemen-

tation, maintenance, and enforcement of such standards of air quality adopted, and if such standards and plan are established in accordance with the letter of intent and if the Secretary determines that such State standards are consistent with the air quality criteria and recommended control techniques issued pursuant to section 107; that the plan is consistent with the purposes of the Act insofar as it assures achieving such standards of air quality within a reasonable time; and that a means of enforcement by State action, including authority comparable to that in subsection (k) of this section, is provided, such State standards and plan shall be the air quality standards applicable to such State. If the Secretary determines that any revised State standards and plan are consistent with the purposes of this Act and this subsection, such standards and plan shall be the air quality standards applicable to such State.

(2) If a State does not (a) file a letter of intent or (b) establish air quality standards in accordance with paragraph (1) of this subsection with respect to any air quality control region or portion thereof and if the Secretary finds it necessary to achieve the purpose of this Act, or the Governor of any State affected by air quality standards established pursuant to this subsection petitions for a revision in such standards, the Secretary may after reasonable notice and a conference of representatives of appropriate Federal departments and agencies, interstate agencies, States, municipalities, and industries involved, prepare regulations setting forth standards of air quality to be applicable to such air quality control region or portions thereof. If, within six months from the date the Secretary publishes such regulations, the State has not adopted air quality standards found by the Secretary to be consistent with the purposes of this Act, or a petition for public hearing has not been filed under paragraph (3) of this subsection, the Secretary shall promulgate such standards.

(3) If at any time prior to thirty days after standards have been promulgated under paragraph (2) of this subsection, the Governor of any State affected by such standards petitions the Secretary for a hearing, the Secretary shall call a public hearing for the purpose of receiving testimony from State and local pollution control agencies and other interested parties affected by the proposed standards, to be held in or near one or more of the places where the air quality standards will take effect, before a hearing board of five or more persons appointed by the Secretary. Each State which

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would be affected by such standards shall be given an opportunity to select a member of the hearing board. The Department of Commerce and other affected Federal departments and agencies shall each be given an opportunity to select a member of the hearing board and not less than a majority of the hearing board shall be persons other than officers or employees of the Department of Health, Education, and Welfare. The members of the board who are not officers or employees of the United States, while participating in the hearing conducted by such hearing board or otherwise engaged in the work of such hearing board, shall be entitled to receive compensation at a rate fixed by the Secretary, but not exceeding $100 per diem, including traveltime and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as au-least thirty days prior to the date of such hearing notice of such hearing shall be published in the Federal Register and given to parties notified of the Conference required in paragraph (2) of this subsection. On the basis of the evidence presented at such hearing, the hearing board shall make findings as to whether the standards published or promulgated by the Secretary should be approved or modified and transmit its findings to the Secretary. If the hearing board approves the standards as published or promulgated by the Secretary, the standards shall take effect on receipt by the Secretary of the hearing board's recommendations. If the hearing board recommends modifications in the standards as published or promulgated by the Secretary, the Secretary shall promulgate revised regulations setting forth standards of air quality in accordance with the hearing board's recommendations which will become effective immediately upon promulgation.

(4) 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 under this subsection and he finds that the State has failed to enforce such air quality standards, such violation of the standards shall be subject to abatement in accordance with the provisions of paragraph (1) or (2) of subsection (g) of this section, except that at least one hundred and eighty days before any abatement action is initiated under either paragraph (1) or (2) of subsection (g) as authorized by this subsection, 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. In any suit brought under the provisions of this subsection the court shall receive in evidence a transcript

of the proceedings of the hearing provided for in this subsection, together with the recommendations of the hearing board and the recommendations and standards promulgated by the Secretary, and such additional evidence, including that relating to the alleged violation of the standards, as it deems necessary to complete review of the standards and to determination of all other issues relating to the alleged violation. The court, giving due consideration to the practicability and to the technological and economic feasibility of complying with such standards, shall have jurisdiction to enter such judgment and orders enforcing such judgment as the public interest and the equities of the case may require.

(*5*) *In connection with any hearings under this section no witness or any other person shall be required to divulge trade secrets or secret processes.*

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(*6*) *Nothing in this subsection shall prevent the application of this section to any case to which subsection* (*a*) *of this section would be otherwise applicable.*

[(c)](*d*)(1)(A) Whenever requested by the Governor of any State, a State air pollution control agency, or (with the concurrence of the Governor and the State air pollution control agency for the State in which the municipality is situated) the governing body of any municipality, the Secretary shall, if such request refers to air pollution which is alleged to endanger the health or welfare of persons in a State other than that in which the discharge or discharges (causing or contributing to such pollution) originate, give formal notification thereof to the air pollution control agency of the municipality where such discharge or discharges originate, to the air pollution control agency of the State in which such municipality is located, and to the interstate air pollution control agency, if any, in whose jurisdictional area such municipality is located, and shall call promptly a conference of such agency or agencies and of the air pollution control agencies of the municipalities which may be adversely affected by such pollution, and the air pollution control agency, if any, of each State, or for each area, in which any such municipality is located.

(B) Whenever requested by the Governor of any State, a State air pollution control agency, or (with the concurrence of the Governor and the State air pollution control agency for the State in which the municipality is situated) the governing body of any municipality, the Secretary shall, if such request refers to alleged air pollution which is endangering the health or welfare of per-

sons only in the State in which the discharge or discharges (causing or contributing to such pollution) originate and if a municipality affected by such air pollution, or the municipality in which such pollution originates, has either made or concurred in such request, give formal notification thereof to the State air pollution control agency, to the air pollution control agencies of the municipality where such discharge or discharges originate, and of the municipality or municipalities alleged to be adversely affected thereby, and to any interstate air pollution control agency, whose jurisdictional area includes any such municipality and shall promptly call a conference of such agency or agencies unless, in the judgment of the Secretary, the effect of such pollution is not of such significance as to warrant exercise of Federal jurisdiction under this section.

(C) The Secretary may, after consultation with State officials of all affected States, also call such a conference whenever, on the basis of reports, surveys, or studies, he has reason to believe that any pollution referred to in subsection (a) is occurring and is endangering the health and welfare of persons in a State other than that in which the discharge or discharges originate. The Secretary shall invite the cooperation of any municipal, State, or interstate air pollution control agencies having jurisdiction in the affected area on any surveys or studies forming the basis of conference action.

(D) Whenever the Secretary, upon receipt of reports, surveys, or studies from any duly constituted international agency, has reason to believe that any pollution referred to in subsection (a) which endangers the health or welfare of persons in a foreign country is occurring, or whenever the Secretary of State requests him to do so with respect to such pollution which the Secretary of State alleges is of such a nature, the Secretary of Health, Education, and Welfare

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shall give formal notification thereof to the air pollution control agency of the municipality where such discharge or discharges originate, to the air pollution control agency of the State in which such municipality is located, and to the interstate air pollution control agency, if any, in the jurisdictional area of which such municipality is located, and shall call promptly a conference of such agency or agencies. The Secretary shall invite the foreign country which may be adversely affected by the pollution to attend and participate in the conference, and the representative of such

country shall, for the purpose of the conference and any further proceeding resulting from such conference, have all the rights of a State air pollution control agency. This subparagraph shall apply only to a foreign country which the Secretary determines has given the United States essentially the same rights with respect to the prevention or control of air pollution occurring in that country as is given that country by this subparagraph.

(2) The agencies called to attend such conference may bring such persons as they desire to the conference. [Not less than three weeks' prior notice of the conference date shall be given to such agencies.] *The Secretary shall deliver to such agencies and make available to other interested parties, at least thirty days prior to any such conference, a Federal report with respect to the matters before the conference, including data and conclusions or findings (if any); and shall give at least thirty days' prior notice of the conference date to any such agency, and to the public by publication on at least three different days in a newspaper or newspapers of general circulation in the area. The chairman of the conference shall give interested parties an opportunity to present their views to the conference with respect to such Federal report, conclusions or findings (if any), and other pertinent information. The Secretary shall provide that a transcript be maintained of the proceedings of the conference and that a copy of such transcript be made available on request of any participant in the conference at the expense of such participant.*

(3) Following this conference, the Secretary shall prepare and forward to all air pollution control agencies attending the conference a summary of conference discussions including (A) occurrence of air pollution subject to abatement under this Act; (B) adequacy of measures taken toward abatement of the pollution; and (C) nature of delays, if any, being encountered in abating the pollution.

[(d)](*e*) If the Secretary believes, upon the conclusion of the conference or thereafter, that effective progress toward abatement of such pollution is not being made and that the health or welfare of any persons is being endangered, he shall recommend to the appropriate State, interstate, or municipal air pollution control agency (or to all such agencies) that the necessary remedial action be taken. The Secretary shall allow at least six months from the date he makes such recommendations for the taking of such recommended action.

[(e)](*f*) (1) If, at the conclusion of the period so allowed, such remedial action or other action which in the judgment of the

Secretary is reasonably calculated to secure abatement of such pollution has not been taken, the Secretary shall call a public hearing, to be held in or near one or more of the places where the discharge or discharges causing or contributing to such pollution originated, before a hearing board of five or more persons appointed by the Secretary. Each State in which any discharge causing or contributing to such pollution originates and each State claiming to adversely affected by such

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pollution shall be given an opportunity to select one member of such hearing board and each Federal department, agency, or instrumentality having a substantial interest in the subject matter as determined by the Secretary shall be given an opportunity to select one member of such hearing board, and one member shall be a representative of the appropriate interstate air pollution agency if one exists, and not less than a majority of such hearing board shall be persons other than officers of the Department of Health, Education, and Welfare. At least three weeks' prior notice of such hearing shall be given to the State, interstate, and municipal air pollution control agencies called to attend such hearing and to the alleged polluter or polluters.

(2) On the basis of evidence presented at such hearing, the hearing board shall make findings as to whether pollution referred to in subsection (a) is occurring and whether effective progress toward abatement thereof is being made. If the hearing board finds such pollution is occurring and effective progress toward abatement thereof is not being made it shall make recommendations to the Secretary concerning the measures, if any, which it finds to be reasonable and suitable to secure abatement of such pollution.

(3) The Secretary shall send such findings and recommendations to the person or persons discharging any matter causing or contributing to such pollution; to air pollution control agencies of the State or States and of the municipality or municipalities where such discharge or discharges originate; and to any interstate air pollution control agency whose jurisdictional area includes any such municipality, together with a notice specifying a reasonable time (not less than six months) to secure abatement of such pollution.

[(f)](*g*) If action reasonably calculated to secure abatement of the pollution within the time specified in the notice following the public hearing is not taken, the Secretary—

(1) in the case of pollution of air which is endangering the health or welfare of persons (A) in a State other than that in which the discharge or discharges (causing or contributing to such pollution) originate, or (B) in a foreign country which has participated in a conference called under subparagraph (D) of subsection [(c)](*d*) of this section and in all proceedings under this section resulting from such conference, may request the Attorney General to bring a suit on behalf of the United States *in appropriate United States district court* to secure abatement of pollution,

(2) in the case of pollution of air which is endangering the health or welfare of persons only in the State in which the discharge or discharges (causing or contributing to such pollution) originate, 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 appropriate United States district court* to secure abatement of the pollution.

[(g)](*h*) The court shall receive in evidence in any suit brought in a United States court under subsection [(f)](*g*) of this section a transcript of the proceedings before the board and a copy of the board's recommendations and shall receive such further evidence as the court

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in its discretion deems proper. The court, giving 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, shall have jurisdiction to enter such judgment, and orders enforcing such judgment, as the public interest and the equities of the case may require.

[(h)](*i*) Members of any hearing board appointed pursuant to subsection [(e)](*f*) who are not regular full-time officers or employees of the United States shall, while participating in the hearing conducted by such board or otherwise engaged on the work of such board, be entitled to receive compensation at a rate fixed by the Secretary, but not exceeding $50 per diem, including traveltime, and while away from their homes or regular places of business they may be allowed travel expenses, including per

diem in lieu of subsistence, as authorized by law (5 U.S.C. 73b–2) for persons in the Government service employed intermittently.

[(i)](*j*) (1) In connection with any conference called under this section, the Secretary is authorized to require any person whose activities result in the emission of air pollutants causing or contributing to air pollution to file with him, in such form as he may prescribe, a report, based on existing data, furnishing to the Secretary such information as may reasonably be required as to the character, kind, and quantity of pollutants discharged and the use of devices or other means to prevent or reduce the emission of pollutants by the person filing such a report. After a conference has been held with respect to any such pollution the Secretary shall require such reports from the person whose activities result in such pollution only to the extent recommended by such conference. Such report shall be made under oath or otherwise, as the Secretary may prescribe, and shall be filed with the Secretary within such reasonable period as the Secretary may prescribe, unless additional time be granted by the Secretary. No person shall be required in such report to divulge trade secrets or secret processes and all information reported shall be considered confidential for the purposes of section 1905 of title 18 of the United States Code.

(2) If any person required to file any report under this subsection shall fail to do so within the time fixed by the Secretary for filing the same, and such failure shall continue for thirty days after notice of such default, such person shall forfeit to the United States the sum of $100 for each and every day of the continuance of such failure, which forfeiture shall be payable into the Treasury of the United States, and shall be recoverable in a civil suit in the name of the United States brought in the district where such person has his principal office or in any district in which he does business: *Provided,* That the Secretary may upon application therefor remit or mitigate any forfeiture provided for under this subsection and he shall have authority to determine the facts upon all such applications.

(3) It shall be the duty of the various United States attorneys, under the direction of the Attorney General of the United States, to prosecute for the recovery of such forfeitures.

(*k*) *Notwithstanding any other provision of this section, the Secretary, upon receipt of evidence that a particular pollution source or combination of sources (including moving sources) is presenting an imminent and substantial endangerment to the*

health of persons, and finding that appropriate State or local authorities have not acted to abate such sources, may

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request the Attorney General to being suit on behalf of the United States in the oppropriate United States district court to immediately enjoin any contributor to the alleged pollution to stop the emission of contaminants causing such pollution or to take such other action as may be necessary.

Standards to Achieve Higher Level of Air Quality

Sec. 109. Nothing in this title shall prevent a State, political subdivision, intermunicipal or interstate agency from adopting standards and plans to implement an air quality program which will achieve a higher level of ambient air quality than approved by the Secretary.

[AUTOMOTIVE VEHICLE AND FUEL POLLUTION

[SEC. 106. (a) The Secretary shall encourage the continued efforts on the part of the automotive and fuel industries to develop devices and fuels to prevent pollutants from being discharged from the exhaust of automotive vehicles, and to this end shall maintain liaison with automotive vehicle, exhaust control device, and fuel manufacturers. For this purpose, he shall appoint a technical committee, whose membership shall consist of an equal number of representatives of the Department and of automotive vehicle, exhaust control device, and fuel manufacturers. The committee shall meet from time to time at the call of the Secretary to evaluate progress in the development of such devices and fuels and to develop and recommend research programs which could lead to the development of such devices and fuels.

[(b) One year after enactment of this section, and semiannually thereafter, the Secretary shall report to the Congress on measures taken toward the resolution of the vehicle exhaust pollution problem and efforts to improve fuels including (A) occurrence of pollution as a result of discharge of pollutants from automotive exhaust; (B) progress of research into development of devices and fuels to reduce pollution from exhaust of automotive vehicles; (C) criteria on degree of pollutant matter discharged from automotive exhausts; (D) efforts to improve fuels so as to reduce emission of exhaust pollutants; and (E) his recommendations for additional legislation, if necessary, to regulate the discharge of pollutants from automotive exhausts.]

President's Air Quality Advisory Board and Advisory Committees

Sec. 110. (a)(1) There is hereby established in the Department of Health, Education, and Welfare an Air Quality Advisory Board, composed of the Secretary or his designee, who shall be Chairman, and fifteen members appointed by the President, none of whom shall be Federal officers or employees. The appointed members, having due regard for the purposes of this Act, shall be selected from among representatives of various State, interstate, and local governmental agencies, of public or private interests contributing to, affected by, or concerned with air pollution, and of other public and private agencies, organizations, or groups demonstrating an active interest in the field of air pollution prevention and control, as well as other individuals who are expert in this field.

(2) Each member appointed by the President shall hold office for a term of three years, except that (A) any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term, and

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(B) the terms of office of the members first taking office pursuant to this subsection shall expire as follows: five at the end of one year after the date of appointment, five at the end of two years after such date, and five at the end of three years after such date, as designated by the President at the time of appointment, and (C) the term of any member under the preceding provisions shall be extended until the date on which his successor's appointment is effective. None of the members shall be eligible for reappointment within one year after the end of his preceding term, unless such term was for less than three years.

(b) The Board shall 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.

(c) Such clerical and technical assistance as may be necessary to discharge the duties of the Board and such other advisory committees as hereinafter authorized shall be provided from the personnel of the Department of Health, Education, and Welfare.

(d) In order to obtain assistance in the development and implementation of the purposes of this Act including air quality criteria, recommended control techniques, standards, research and

development, and to encourage the continued efforts on the part of industry to improve air quality and to develop economically feasible methods for the control and abatement of air pollution, the Secretary shall from time to time establish advisory committees. Committee members shall include, but not be limited to, persons who are knowledgeable concerning air quality from the standpoint of health, welfare, economics, or technology.

(e) The members of the Board and other advisory committees appointed pursuant to this Act who are not officers or employees of the United States, while attending conferences or meetings of the Board or while otherwise serving at the request of the Secretary, shall be entitled to receive compensation at a rate to be fixed by the Secretary, but not exceeding $100 per diem including traveltime, and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703 of title 5 of the United States Code for persons in the Government service employed intermittently.

COOPERATION BY FEDERAL AGENCIES TO CONTROL AIR POLLUTION FROM FEDERAL FACILITIES

SEC. [*107.*] *111.* (a) It is hereby declared to be the intent of Congress that any Federal department or agency having jurisdiction over any building, installation, or other property shall, to the extent practicable and consistent with the interests of the United States and within any available appropriations, cooperate with the Department of Health, Education, and Welfare, and with any air pollution control agency in preventing and controlling the pollution of the air in any area insofar as the discharge of any matter from or by such building, installation, or other property may cause or contribute to pollution of the air in such area.

(b) In order to control air pollution which may endanger the health or welfare of any persons, the Secretary may establish classes of potential pollution sources for which any Federal department or agency having jurisdiction over any building, installation, or other property shall, before discharging any matter into the air of the United States, obtain a permit from the Secretary for such discharge,

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such permits to be issued for a specified period of time to be determined by the Secretary and subject to revocation if the Secretary finds pollution is endangering the health and welfare of any per-

sons. In connection with the issuance of specifications, and other information as he deems relevant thereto and under such conditions as he may prescribe. The Secretary shall report each January to the Congress the status of such permits and compliance therewith.

TITLE II—[CONTROL OF AIR POLLUTION FROM MOTOR VEHICLES] *NATIONAL EMISSION STANDARDS ACT*

SHORT TITLE

SEC. 201. This title may be cited as the [“Motor Vehicle Air Pollution Control Act”] *“National Emission Standards Act.”*

ESTABLISHMENT OF STANDARDS

SEC. 202. (a) The Secretary shall by regulation, giving appropriate consideration to technological feasibility and economic costs, prescribe as soon as practicable standards, applicable to the emission of any kind of substance, from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause or contribute to, or are likely to cause or to contribute to, air pollution which endangers the health or welfare of any persons, and such standards shall apply to such vehicles or engines whether they are designed as complete systems or incorporate other devices to prevent or control such pollution.

(b) Any regulations initially prescribed under this section, and amendments thereto, with respect to any class of new motor vehicles or new motor vehicle engines shall become effective on the effective date specified in the order promulgating such regulations which date shall be determined by the Secretary after consideration of the period reasonably necessary for industry compliance.

PROHIBITED ACTS

SEC. 203. (a) The following acts and the causing thereof are prohibited—

(1) in the case of a manufacturer of new motor vehicles or new motor vehicle engines for distribution in commerce, the manufacture for sale, the sale, or the offering for sale, or the introduction or delivery for introduction into commerce, or the importation into the United States for sale or resale, of any new motor vehicle or new motor vehicle engine, manu-

factured after the effective date of regulations under this title which are applicable to such vehicle or engine unless it is in conformity with regulations prescribed under section 202 (except as provided in subsection (b));

(2) for any person to fail or refuse to permit access to or copying of records or fail to make reports or provide information, required under section 207; or

(3) for any person to remove or render inoperative any device or element of design installed on or in a motor vehicle or motor

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vehicle engine in compliance with regulations under this title prior to its sale and delivery to the ultimate purchaser.

(b) (1) The Secretary may exempt any new motor vehicle or new motor vehicle engine, or class thereof, from subsection (a), upon such terms and conditions as he may find necessary to protect the public health or welfare, for the purpose of research, investigations, studies, demonstrations, or training, or for reasons of national security.

(2) A new motor vehicle or new motor vehicle engine offered for importation by a manufacturer in violation of subsection (a) shall be refused admission into the United States, but the Secretary of the Treasury and the Secretary of Health, Education, and Welfare may, by joint regulation, provide for deferring final determination as to admission and authorizing the delivery of such a motor vehicle or engine offered for import to the owner or consignee thereof upon such terms and conditions (including the furnishing of a bond) as may appear to them appropriate to insure that any such motor vehicle or engine will be brought into conformity with the standards, requirements, and limitations applicable to it under this title. The Secretary of the Treasury shall, if a motor vehicle or engine is finally refused admission under this paragraph, cause disposition thereof in accordance with the customs laws unless it is exported, under regulations prescribed by such Secretary, within ninety days of the date of notice of such refusal or such additional time as may be permitted pursuant to such regulations, except that disposition in accordance with the customs laws may not be made in such manner as may result, directly or indirectly, in the sale, to the ultimate consumer, of a new motor vehicle or new motor vehicle engine that fails to comply with applicable standards of the Secretary of Health, Education, and Welfare under this title.

(3) A new motor vehicle or new motor vehicle engine intended solely for export, and so labeled or tagged on the outside of the container and on the vehicle or engine itself, shall not be subject to the provisions of subsection (a).

INJUNCTION PROCEEDINGS

SEC. 204. (a) The district courts of the United States shall have jurisdiction to restrain violations of paragraph (1), (2), or (3) of section 203(a).

(b) Actions to restrain such violations shall be brought by and in the name of the United States. In any such action, subpenas for witnesses who are required to attend a district court in any district may run into any other district.

PENALTIES

SEC. 205. Any person who violates paragraph (1), (2), or (3) of section 203(a) shall be subject to a fine of not more than $1,000. Such violation with respect to section 203(a)(1) and 203(a)(3) shall constitute a separate offense with respect to each new motor vehicle or new motor vehicle engine.

CERTIFICATION

SEC. 206. (a) Upon application of the manufacturer, the Secretary shall test, or require to be tested, in such manner as he deems appro-

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priate, any new motor vehicle or new motor vehicle engine submitted by such manufacturer to determine whether such vehicle or engine conforms with the regulations prescribed under section 202 of this title. If such vehicle or engine conforms to such regulations the Secretary shall issue a certificate of conformity, upon such terms, and for such period not less than one year, as he may prescribe.

(b) Any new motor vehicle or any motor vehicle engine sold by such manufacturer which is in all material respects substantially the same construction as the test vehicle or engine for which a certificate has been issued under subsection (a), shall for the purposes of this Act be deemed to be in conformity with the regulations issued under section 202 of this title.

RECORDS AND REPORTS

SEC. 207. (a) Every manufacturer shall establish and maintain such records, make such reports, and provide such information as the Secretary may reasonably require to enable him to determine whether such manufacturer has acted or is acting in compliance with this title and regulations thereunder and shall, upon request of an officer or employee duly designated by the Secretary, permit such officer or employee at reasonable times to have access to and copy such records.

(b) All information reported or otherwise obtained by the Secretary or his representative pursuant to subsection (a), which information contains or relates to a trade secret or other matter referred to in section 1905 of title 18 of the United States Code, shall be considered confidential for the purpose of such section 1905, except that such information may be disclosed to other officers or employees concerned with carrying out this Act or when relevant in any proceeding under this Act. Nothing in this section shall authorize the withholding of information by the Secretary or any officer or employee under his control, from the duly authorized committees of the Congress.

STATE STANDARDS

Sec. 208. (a) No State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this title. No State shall require certification, inspection, or any other approval relating to the control of emissions from any new motor vehicle or new motor vehicle engine as condition precedent to the initial retail sale, titling (if any), or registration of such motor vehicle, motor vehicle engine, or equipment.

(b) The Secretary shall, after notice and opportunity for public hearing, waive application of this section to any State which has adopted standards (other than crankcase emission standards) for the control of emissions from new motor vehicles or new motor vehicle engines prior to March 30, 1966, unless he finds that such State does not require standards more stringent than applicable Federal standards to meet compelling and extraordinary conditions or that such State standards and accompanying enforcement procedures are not consistent with section 202(a) of this title.

(c) Nothing in this title shall preclude or deny to any State of political subdivision thereof the right otherwise to control, regu-

late, or restrict the use, operation, or movement of registered or licensed motor vehicles.

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Federal Assistance in Developing Vehicle Inspection Programs

Sec. 209. The Secretary is authorized to make grants to appropriate State air pollution control agencies in an amount up to two-thirds of the cost of developing meaningful uniform motor vehicle emission device inspection and emission testing programs except that (1) no grant shall be made for any part of any State vehicle inspection program which does not directly relate to the cost of the air pollution control aspects of such a program; and (2) no such grant shall be made unless the Secretary of Transportation has certified to the Secretary that such program is consistent with any highway safety program developed pursuant to section 402 of title 23 of the United States Code.

REGISTRATION OF FUEL ADDITIVES

Sec. 210. (a) The Secretary may by regulation designate any fuel or fuels (including fuels used for purposes other than motor vehicles), and after such date or dates as may be prescribed by him, no manufacturer or processor of any such fuel may deliver any fuel for introduction into interstate commerce or to another person who, it can reasonably be expected, will deliver such fuel for such introduction unless such fuel has been registered with the Secretary in accordance with this section.

(b) For the purposes of this section the Secretary shall require (1) the manufacturer of such fuel to notify him as to the commercial identifying name and manufacturer of any additive contained in such fuel; the range of concentration of such additive or additives in the fuel; and the purpose of the use of such additive; (2) the manufacturer of any such additive to notify him as to the chemical structure and composition of such additive or additives as indicated by compliance with clause (1) above, the recommended range of concentration of such additive, if any, and the recommended purpose in the use of such additive. Upon compliance with clauses (1) and (2), including assurances that any change in the above information will be provided to the Secretary, the Secretary shall register such fuel.

(c) All information reported or otherwise obtained by the Sec-

retary or his representative pursuant to subsection (b), which information contains or relates to a trade secret or other matter referred to in section 1905 of title 18 of the United States Code, shall be considered confidential for the purpose of such section 1905, except that such information may be disclosed to other officers or employees concerned with carrying out this Act or when relevant in any proceeding under this Act. Nothing in this section shall authorize the withholding of information by the Secretary or any officer or employee under his control, from the duly authorized committees of the Congress.

(d) Any person who violates subsection (a) shall forfeit and pay to the United States a civil penalty of $1,000 for each and every day of the continuance of such violation, which shall accrue to the United States and be recovered in a civil suit in the name of the United States, brought in the district where such person has his principal office or in any district in which he does business. The Secretary may, upon application therefor, remit or mitigate any forfeiture provided for in this subsection, and he shall have authority to determine the facts upon all such applications.

(e) It shall be the duty of the various United States attorneys, under the direction of the Attorney General of the United States, to prosecute for the recovery of such forfeitures.

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National Emissions Standards Study

Sec. 211. The Secretary shall submit to the Congress, no later than two years after the effective date of this section, a comprehensive report on the need for and effect of national emission standards for stationary sources. Such report shall include: (A) information regarding identifiable health and welfare effects from single emission sources; (B) examples of specific plants, their location, and the contaminant or contaminants which, due to the amount or nature of emissions from such facilities, constitute a danger to public health or welfare; (C) an up-to-date list of those industries and the contaminant or contaminants which, in his opinion, should be subject to such national standards; (D) the relationship of such national emission standards to ambient air quality, including a comparison of situations wherein several plants emit the same contaminants in an air region with those in which only one such plant exists; (E) an analysis of the cost of applying such standards, and (F) such other information as may be appropriate.

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DEFINITIONS FOR TITLE II

SEC. [208.] *212.* As used in this title—

(1) The term "manufacturer" *as used in sections 203, 206, 207, and 208* means any person engaged in the manufacturing or assembling of new motor vehicles or new motor vehicle engines, or importing such vehicles or engines for resale, or who acts for and is under the control of any such person in connection with the distribution of new motor vehicles or new motor vehicle engines, but shall not include any dealer with respect to new motor vehicles or new motor vehicle engines received by him in commerce.

(2) The term "motor vehicle" means any self-propelled vehicle designed for transporting persons or property on a street or highway.

(3) The term "new motor vehicle" means a motor vehicle the equitable or legal title to which has never been transferred to an ultimate purchaser; and the term "new motor vehicle engine" means an engine in a new motor vehicle or a motor vehicle engine the equitable or legal title to which has never been transferred to the ultimate purchaser.

(4) The term "dealer" means any person who is engaged in the sale or the distribution of new motor vehicles or new motor vehicle engines to the ultimate purchaser.

(5) The term "ultimate purchaser" means, with respect to any new motor vehicle or new motor vehicle engine, the first person who in good faith purchases such new motor vehicle or new engine for purposes other than resale.

(6) The term "commerce" means (A) commerce between any place in any State and any place outside thereof; and (B) commerce wholly within the District of Columbia.

TITLE III—GENERAL

ADMINISTRATION

SEC. 301. (a) The Secretary is authorized to prescribe such regulations as are necessary to carry out his functions under this Act. The Secretary may delegate to any officer or employee of the Department of Health, Education, and Welfare such of his powers and

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duties under this Act, except the making of regulations, as he may deem necessary or expedient.

(b) Upon the request of an air pollution control agency, personnel of the Public Health Service may be detailed to such agency for the purpose of carrying out the provisions of this Act. The provisions of section 214(d) of the Public Health Service Act shall be applicable with respect to any personnel so detailed to the same extent as if such personnel had been detailed under section 214(b) of that Act.

(c) Payments under grants made under this Act may be made in installments, and in advance or by way of reimbursement, as may be determined by the Secretary.

DEFINITIONS

SEC. 302. When used in this Act—

(a) The term "Secretary" means the Secretary of Health, Education, and Welfare.

(b) The term "air pollution control agency" means any of the following:

(1) A single State agency designated by the Governor of that State as the official State air pollution control agency for purposes of this Act;

(2) An agency established by two or more States and having substantial powers or duties pertaining to the prevention and control of air pollution;

(3) A city, county, or other local government health authority, or, in the case of any city, county, or other local government in which there is an agency other than the health authority charged with responsibility for enforcing ordinances or laws relating to the prevention and control of air pollution, such other agency; or

(4) An agency of two or more municipalities located in the same State or in different States and having substantial powers or duties pertaining to the prevention and control of air pollution.

(c) The term "regional air pollution control agency or planning commission" means an agency of two or more municipalities located in the same State or in different States and having the capability of carrying out the planning functions authorized by this Act,

[(c)](*d*) The term "interstate air pollution control agency" means—

(1) an air pollution control agency established by two or more States, or

(2) an air pollution control agency of two or more municipalities located in different States.

[(d)](*e*) The term "State" means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, and American Samoa.

[(e)](*f*) The term "person" includes an individual, corporation, partnership, association, State, municipality, and political subdivision of a State.

[(f)](*g*) The term "municipality" means a city, town, borough, county, parish, district, or other public body created by or pursuant to State law.

[(g)](*h*) All language referring to adverse effects on welfare shall include but not be limited to injury to agricultural crops and livestock,

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damage to and deterioration of property, and hazards to transportation.

OTHER AUTHORITY NOT AFFECTED

SEC. 303. (a) Except as provided in subsection (b) of this section, this Act shall not be construed as superseding or limiting the authorities and responsibilities, under any other provision of law, of the Secretary or any other Federal officer, department, or agency.

(b) No appropriation shall be authorized or made under section 301, 311, or 314(c) of the Public Health Service Act for any fiscal year after the fiscal year ending June 30, 1964, for any purpose for which appropriations may be made under authority of this Act.

RECORDS AND AUDIT

SEC. 304. (a) Each recipient of assistance under this Act shall keep such records as the Secretary shall prescribe, including records which fully disclose the amount and disposition by such recipient of the proceeds of such assistance, the total cost of the project or undertaking in connection with which such assistance is given or used, and the amount of that portion of the cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

(b) The Secretary of Health, Education, and Welfare and the Comptroller General of the United States, or any of their duly

authorized representatives, shall have access for the purpose of audit and examinations to any books, documents, papers, and records of the recipients that are pertinent to the grants received under this Act.

Comprehensive Economic Cost Studies

Sec. 305. (a) In order to provide the basis for evaluating programs authorized by this Act and the development of new programs and to furnish the Congress with the information necessary for authorization of appropriations by fiscal years beginning after June 30, 1969, the Secretary, in cooperation with State, interstate, and local air pollution control agencies, shall make a detailed estimate of the cost of carrying out the provisions of this Act; a comprehensive study of the cost of program implementation by affected units of government; and a comprehensive study of the economic impact of air quality standards on the Nation's industries, communities, and other contributing sources of pollution, including an analysis of the national requirements for and the cost of controlling emissions to attain such standards of air quality as may be established pursuant to this Act or applicable State law. The Secretary shall submit such detailed estimate and the results of such comprehensive study of cost for the five-year period beginning July 1, 1969, and the results of such other studies, to the Congress not later than January 10, 1969, and shall submit a reevaluation of such estimate and studies annually thereafter.

(b) The Secretary shall also make a complete investigation and study to determine (1) the need for additional trained State and local personnel to carry out programs assisted pursuant to this Act and other programs for the same purpose as this Act; (2) means of using existing Federal training programs to train such personnel; and (3) the need for additional trained personnel to develop, operate, and maintain those pollution control facilities designed and installed to implement air quality standards.

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He shall report the results of such investigation and study to the President and the Congress not later than July 1, 1969.

Additional Reports to Congress

Sec. 306. Not later than six months after the effective date of this section and not later than January 10 of each calendar year beginning after such date, the Secretary shall report to the Con-

gress on measures taken toward implementing the purpose and intent of this Act including, but not limited to, (1) the progress and problems associated with control of automotive exhaust emissions and the research efforts related thereto; (2) the development of air quality criteria and recommended emission control requirements; (3) the status of enforcement actions taken pursuant to this Act; (4) the status of State ambient air standards setting, including such plans for implementation and enforcement as have been developed; (5) the extent of development and expansion of air pollution monitoring systems; (6) progress and problems related to development of new and improved control techniques: (7) the development of quantitative and qualitative instrumentation to monitor emissions and air quality; (8) standards set or under consideration pursuant to title II of this Act; (9) the status of State, interstate, and local pollution control programs established pursuant to and assisted by this Act; and (10) the reports and recommendations made by the President's Air Quality Advisory Board.

SEPARABILITY

SEC. [305] *307.* If any provision of this Act, or the application of any provision of this Act to any person or circumstance, is held invalid, the application of such provision to other persons or circumstances, and the remainder of this Act, shall not be affected thereby.

APPROPRIATIONS

SEC. [306] *308.* There are hereby authorized to be appropriated to carry out this Act, [$46,000,000 for the fiscal year ending June 30, 1967, $66,000,000] *other than sections 103(d) and 104, $75,000,000* for the fiscal year ending June 30, 1968, [and $74,000,000] *$100,000,000* for the fiscal year ending June 30, [1969.] *1969, and $150,000,000 for the fiscal year ending June 30, 1970.*

SHORT TITLE

SEC. [307.] *309.* This Act may be cited as the "Clean Air Act."

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1.lh(2) HOUSE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

H.R. REP. No. 728, 90th Cong., 1st Sess. (1967)

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AIR QUALITY ACT OF 1967

OCTOBER 3, 1967.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. STAGGERS, from the Committee on Interstate and Foreign Commerce, submitted the following

REPORT

together with

ADDITIONAL VIEWS

[To accompany S. 780]

The Committee on Interstate and Foreign Commerce, to whom was referred the bill (S. 780) to amend the Clean Air Act to authorize planning grants to air pollution control agencies; expand research provisions relating to fuels and vehicles; provide for interstate air pollution control agencies or commissions; authorize the establishment of air quality standards, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

The amendment strikes out all after the enacting clause and inserts a new text, revising the Clean Air Act, which is set forth in the reported bill in italic type.

PRINCIPAL PURPOSES OF THE BILL

The bill is intended primarily to pave the way for control of air pollution problems on a regional basis in accordance with air quality standards and enforcement plans developed by the States. State standards and enforcement plans would have to be consistent with air quality criteria and control technology data published by the Secretary of Health, Education, and Welfare. The Secretary would be empowered to initiate action to insure setting and enforcement of standards if a State failed to take reasonable action to achieve compliance.

In general, the bill follows the pattern of the bill as passed by the Senate, with modifications discussed hereafter.

OTHER PROVISIONS OF THE BILL

The bill would also—

(1) Retain the existing authority for the Secretary to take action to abate interstate and intrastate air pollution;

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(2) Retain the existing authority for the Secretary to promulgate national standards for the control of air pollution from new motor vehicles and provide new authority for promulgation of more stringent standards applicable to areas where special problems exist;

(3) Retain the existing authority for grants to air pollution control agencies for the development, establishment, improvement, or maintenance of control programs and provide new authority for grants to such agencies for the purpose of planning control programs;

(4) Revise downward from 12½ percent to 10 percent of total grant funds the amount that may be awarded to control agencies in any single State;

(5) Retain the existing authority for air pollution research and training activities;

(6) Authorize financial support of air quality planning programs set up by Governors to recommend air quality standards and implementation plans for interstate air quality control regions designated by the Secretary;

(7) Authorize the Secretary, when he deems it necessary, to establish air quality planning commissions to recommend air quality standards for designated air quality control regions;

(8) Require reevaluation of air quality criteria issued prior to enactment of the bill and, if necessary, revision and reissuance of such criteria;

(9) Preserve the rights of States, political subdivisions, and intermunicipal or interstate agencies to adopt and implement programs which will achieve a higher level of air quality than approved by the Secretary;

(10) Provide for the establishment of a 15-member Air Quality Advisory Board to consult with the Secretary and make recommendations to the President;

(11) Provide for the establishment of advisory committees to assist the Secretary in implementing the provisions of the legislation, including those pertaining to the development of air quality criteria and the publication of information on recommended control techniques;

(12) Retain the existing authority for prevention and control of air pollution at Federal facilities;

(13) Provide for grants to State air pollution control agencies to assist them in developing programs for the inspection of motor vehicle pollution control systems installed in compliance with standards promulgated by the Secretary;

(14) Provide for registration of fuel additives;

(15) Provide for a study of the need for and effect of national emission standards for stationary sources of air pollution and a report to the Congress within 2 years;

(16) Provide for a study of the feasibility and practicability of controlling emissions from jet and piston aircraft engines;

(17) Provide for comprehensive economic studies of the cost of implementing the legislation;

(18) Provide for a study of manpower needs and training programs in the field of air pollution control; and

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(19) Provide for an initial report to the Congress on implementation of the legislation not later than 6 months after enactment and annual reports thereafter.

APPROPRIATION AUTHORIZATIONS

The committee has authorized a total of $362.3 million of new obligational authority over a 3-year period. This total includes $33 million additional for fiscal 1968, $145 million total for fiscal 1969, and $184.3 million total for fiscal 1970.

[In thousands of dollars]

	1968* amendment	1969	1970
Grants:			
Research		9,200	11,000
Fellowships		500	1,000
Training		2,900	3,000
Control programs		28,500	43,000
Survey and demonstration		2,000	2,500
Direct operations:			
Research	31,400	82,981	101,725
Abatement and control	1,500	15,419	17,875
Motor vehicle pollution control		1,600	1,900
Training	100	1,900	2,300
Total	33,000	145,000	184,300

*Current authorizations total $66,000,000 for fiscal 1966. Amounts shown for 1966 are in addition to the $66,000,000 already authorized.

NEED FOR LEGISLATION

There can be no doubt that air pollution is a threat to the health and well-being of the American people. Air pollution in the United States is responsible, wholly or in substantial part, for some deaths and for a great deal of unnecessary disability and discomfort. Moreover, this problem, which is already serious, is worsening in direct proportion to the Nation's economic and urban population growth and its continuing technological progress.

Of paramount importance are the dangers to public health. In his testimony before the Committee, the Surgeon General explained that there are four principal types of evidence associating air pollution with injury to human health: (1) The direct association between air pollution and excess mortality during periods of unusually severe air pollution; (2) epidemiological evidence that shows direct correspondence between the incidence of disease and the levels of air pollution experienced by large population groups over substantial periods of time; (3) clinical evidence derived from studies of human individuals; and (4) laboratory evidence based upon animal studies.

Each of these four has produced data which, even when considered alone, present impressive evidence of damage to health resulting from air pollution. Taken together, these data add up to a disturbing and convincing portrait of a major health menace.

Though the data have come from many different studies conducted under many different conditions, they are mutually reinforcing to a remarkable degree. No conceivable chain of coincidence could have produced such strikingly parallel results. The cumulative indictment is overwhelming.

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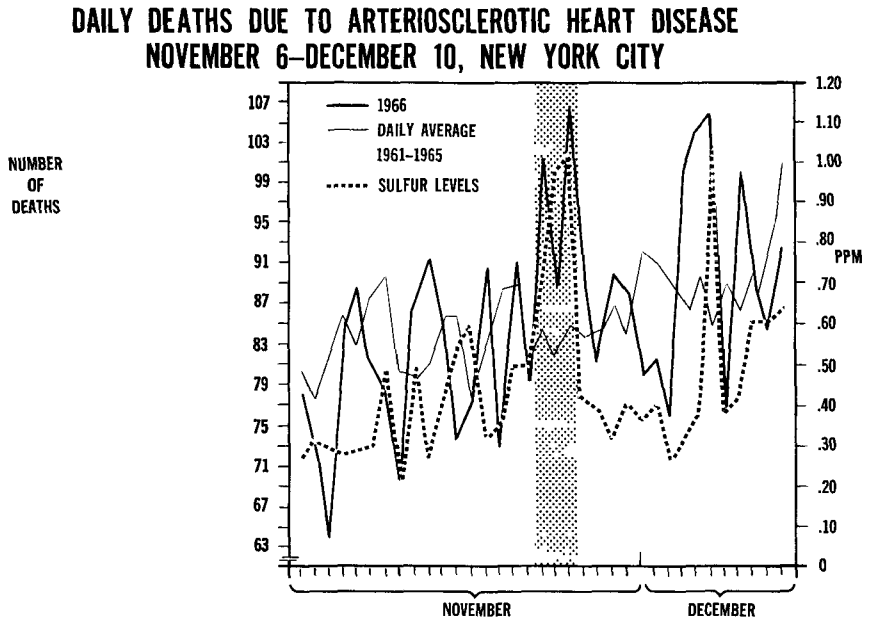
The first class of evidence comes from studies of major episodes of unusually severe air pollution during relatively short time periods. The most widely known of these episodes occurred in the heavily industrialized Meuse Valley of Belgium in 1930; in Donora, Pa., in 1948; in New York City in 1953; and in London in 1952 and 1962. During the London smog of 1952, 4,000 more deaths were recorded in that city than would normally have occurred during a similar period of time. In Donora, an industrial town which, in 1948, normally recorded about one death every 3 days, 17 people died in a single 24-hour period during a 4-day smog. The chart below shows the increase in death rates from arteriosclerotic heart disease in New York City occurring during the period of the thermal inversion in that area over last Thanksgiving.



Studies of such episodes have shown that most of those who die are persons already suffering from chronic respiratory or cardiovascular disease. Excessive pollution aggravates their preexisting condition to the point of death. The population of every city and town contains substantial numbers of such individuals, as well as many members of other population groups—including infants and young children, the elderly, and others—some of whom may become seriously ill or die during severe pollution episodes. Moreover, the air over most cities and towns contains the kinds of ingredients that could produce another London or Donora. There is absolutely no way to predict with confidence that such disasters will not happen again, in the same cities or in any of hundreds of others.

Thus far, such occurrences have been rare. This fact tends to create the false impression that air pollution is a health hazard only when unusual weather conditions conspire to produce localized disasters.

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As a result, people tend to evaluate the hazards of air pollution as roughly equivalent to the liklihood of being struck by lightning. The facts are otherwise. The subtler, less dramatic long-range effects of air pollution are of much more serious consequences

to the population as a whole. In his testimony, the Surgeon General cited several examples of the many studies that have documented the long-term health hazards.

The association between lung cancer and cigarette smoking has tended to obscure other elements in the lung cancer picture. The classic study, "Smoking and Death Rates," published by Drs. Hammond and Horn in 1958, contains the following significant passage: "The age-standardized death rate (from lung cancer) was 34 per 100,000 in rural areas, as compared with 56 per 100,000 in cities of over 50,000 in population. Standardized for smoking habits as well as for age, the rate was 39 per 100,000 in rural areas and 52 per 100,000 in cities of over 50,000 population. Thus, when standardized for both factors, the rate was still 25 percent lower in rural areas than in large cities."

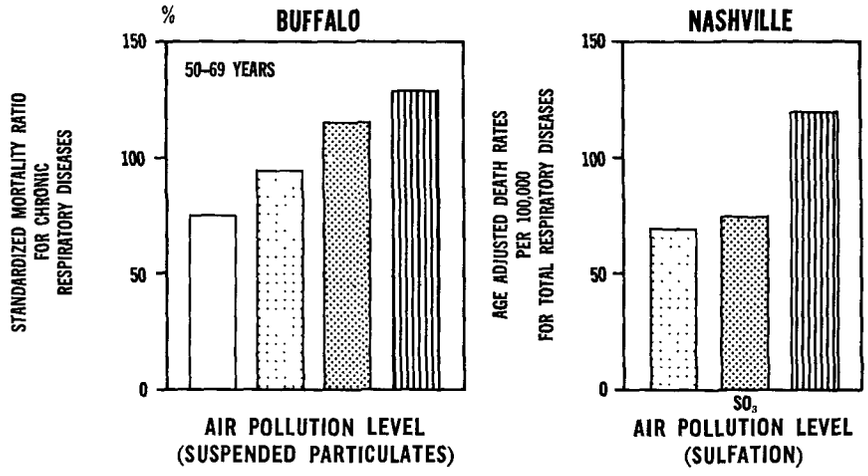
In other words, although the association with smoking appears to be the strongest single factor, there is still a 25-percent urban-rural differential in lung cancer death rates when the smoking factor has been balanced out. Other studies have shown that lung cancer death rates in general rise in direct proportion to city size, as do air pollution levels.

Statistical and epidemiological studies show significant correlation between air pollution levels and a number of other conditions including emphysema, chronic bronchitis, and the common cold. Chronic bronchitis mortality in Great Britain has been correlated with population density, amount of fuel used, dust measures, decreased visibility, and levels of sulfur dioxide in the air—all of these being indices of air pollution. Common colds and other upper respiratory infections occur more often in conjunction with high pollution levels, as has been documented in a study in Maryland, another in Detroit, and in Great Britain, Japan, and the Soviet Union.

Studies in Nashville, Tenn., and Buffalo, N.Y., indicate relationships between pollution levels and community patterns of disease. In Nashville, data were studied on 38,207 deaths over a 12-year period. Making full allowance for such differences as socioeconomic status, age, and race, the sections of the city subject to heaviest air pollution were the areas of highest death rates from all respiratory diseases and from such specific diseases as tuberculosis, influenza, pneumonia. In Buffalo, those parts of the city with the heaviest pollution load had the highest death rates from all causes and from chronic respiratory disease. Separate studies done elsewhere have shown that mortality from such infectious

respiratory diseases as influenza is higher where pollution is heavy than in comparable areas with low pollution. [p. 5]

RESPIRATORY DISEASE MORTALITY BY AIR POLLUTION EXPOSURE FOR BUFFALO AND NASHVILLE



BARS REPRESENT LOW, LOWER MEDIUM, UPPER MEDIUM, HIGH POLLUTION FOR BUFFALO; BARS REPRESENT LOW, MEDIUM AND HIGH POLLUTION FOR NASHVILLE

Clinical research adds to the indictment against air pollution and suggests some of the reasons underlying the effects noted in epidemiological investigations. Studies with both normal volunteers and persons suffering from chronic illness show that the breathing patterns of both groups changed together from day to day in response to pollution levels in the air.

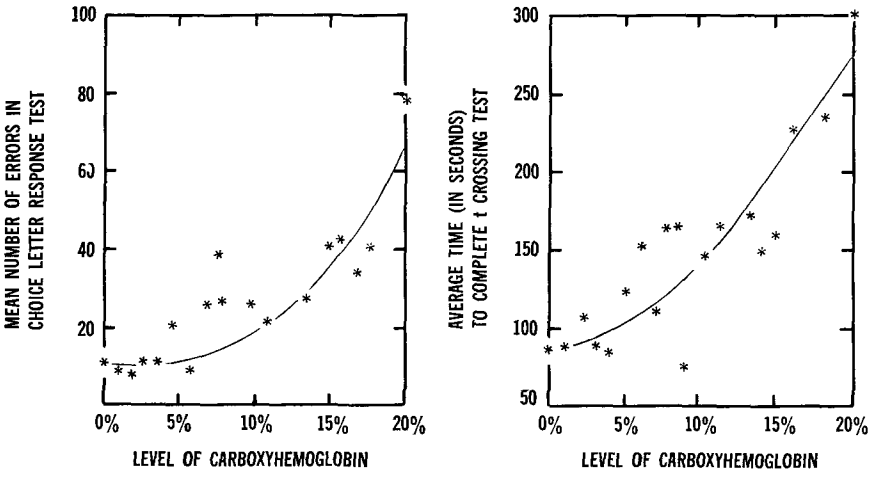
The condition of patients suffering from emphysema improves when they are protected from irritant air pollution in the community air. One group in Los Angeles showed striking improvement, both in their own subjective feeling and in terms of objective measurements, after 24 hours of breathing filtered air. In a group of about 1,000 chronic bronchitis patients, who recorded daily whether they felt better or worse than the day before, variations in their response closely paralleled fluctuations in the sulfur dioxide and smoke content of the air around them.

Clinical studies of chronic disease patients exposed for a week to the city air of Los Angeles showed that they increased their rate of oxygen consumption and at the same time had lower levels of oxygen in the blood, as compared with their experience in breathing filtered air. Studies of the effect of carbon monoxide have shown that even low levels impair visual sensitivity. Investigations indicate that the levels of carbon monoxide sometimes

occurring in automobiles on busy streets may adversely affect many persons whose susceptibility is heightened by anemia or cardiorespiratory disease—perhaps to the point of damaging vital organs.

[p. 6]

EFFECT OF MILD CARBON MONOXIDE INTOXICATION ON COGNITIVE AND PSYCHOMOTOR ABILITIES OF HUMAN VOLUNTEERS



Additional evidence has come from laboratory studies related to specific pollutants and to community air, with laboratory animals used as subjects. The results of such studies cannot be extrapolated in their entirety to apply to human beings. But they provide insights, difficult or impossible to obtain otherwise, on how much damage pollution can do and the mechanisms by which that damage may be done.

Considerable work has been done on possible cancer causation in mice by pollutants acting alone or in combination. In one study a selected strain of mice developed bronchogenic cancer of a type humans have after they had been sensitized with influenza virus and exposed to ozonized gasoline similar to smog. In another study, hamsters which were treated internally with one of the commonest known cancer-producing substances in community air experienced 100 percent incidence of bronchogenic cancer. A long-range study of mice exposed to community smog levels over a 16-month period showed an increase in lung tumors in the aging animals as compared with a similar group which had lived in a filtered atmosphere.

Other animal studies have shown that the presence of any of a number of common pollutants impedes the breathing process. It increases the resistance to the passage of air and slows down the ciliary action whereby impurities are taken care of in the lungs. Solid particles are deposited in abnormal quantities in the tissues of the respiratory system. Some pollutants, such as carbon monoxide, lower oxygen levels in the blood and thereby make it harder for the cardiovascular system to do its work.

All of these effects place an additional burden on the body. For a person already suffering some degree of impairment, this added burden may be critical. Moreover some of these effects may set the stage for the development of serious disease and accelerate the progress of that disease once it begins.

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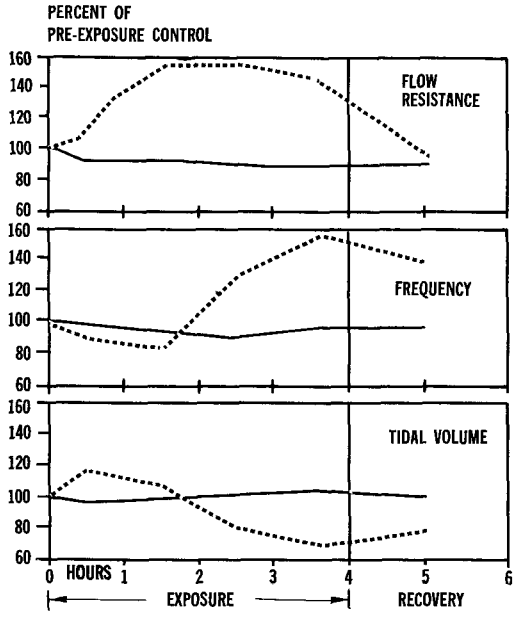
The conclusion is inescapable that air pollution is a major factor in the development of many diseases affecting millions of Americans. There is evidence of many kinds, from many sources, pointing inexorably in this direction. In short, air pollution is clearly one of the most serious public health problems facing the Nation today, and it is a problem that is steadily worsening.

Health problems, however, are not the only difficulty arising from pollution in the air. Damage to buildings, vegetation, and materials of all kinds also result, and visibility is not consistent with the purposes of the bill.

GUINEA PIG RESPIRATION DURING EXPOSURE TO IRRADIATED EXHAUST OR CLEAN AIR



LEGEND
——— CYCLED EXHAUST
····· CLEAN AIR

There is not a single major metropolitan area in the United States that does not have an air pollution problem. There are few places, if any, where control efforts are adequate to deal with the problems that already exist, let alone the much greater problems that lie ahead. All the trends that contribute to growth of the air pollution problem are rising. By 1980, the Nation's urban population will be one-third greater; the number of motor vehicles in use will increase by 40 percent; and demands for energy will be 50 percent higher. Unless control efforts are expanded and strengthened, air pollution will reach critical proportions in the next decade.

In a message to the Congress on January 30, 1967, the President noted that some progress toward better control of air pollution has already been made. In particular, he cited expansion of State and local activities, Federal action to abate interstate air pollution, and the promulgation of national standards for the control of motor vehicle pollution, and intensification of research on methods of controlling pollution—all accomplished under provisions of the Clean Air Act, as amended.

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All of the major activities authorized by the Clean Air Act and the amendments of 1965 and 1966 are essential and must be continued. But the fact remains that greatly accelerated efforts are needed if the Nation is to overtake the rising tide of air pollution. In his message of January 30, the President urged the adoption of new legislation. Virtually all the witnesses who testified before the committee agreed that new legislation is needed. While there were differences of opinion on what the legislation should provide, there was no disagreement on the fundamental question of whether greater Federal participation in the fight against air pollution is needed. The proposed Air Quality Act of 1967 would pave the way for the Federal Government to furnish increased support of air pollution control activities in all parts of the country. This legislation has the support of the administration, as indicated in Secretary Gardner's testimony. Prompt enactment of the bill is vital.

MAJOR PROVISIONS OF THE BILL AS REPORTED

The Clean Air Act of 1963 marked the beginning of a new and much more hopeful era in air pollution control. For the first time,

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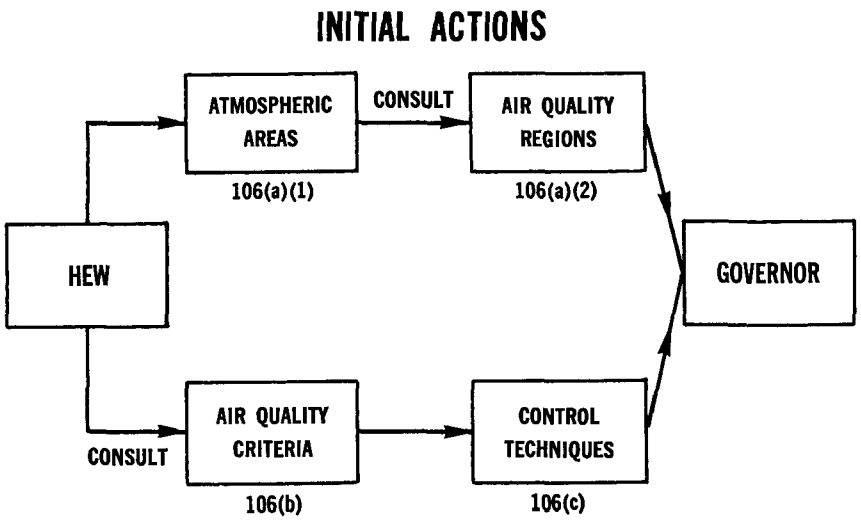
authority was provided for Federal regulatory action to abate interstate air pollution problems and for the awarding of Federal funds to encourage the development of regulatory control programs at the State and local levels.

The proposed new legislation would provide for continuation of all of the major activities which the Department of Health, Education, and Welfare is currently authorized to conduct. In addition, it would provide the basis for systematic control activities on a regional scale. The committee recognizes that it would not lead to direct abatement of air pollution sources, but rather to the development of a technically sound and rational plan by which pollution sources would be controlled in accordance with air quality criteria and detailed data control technology.

IMPLEMENTATION OF THE PRINCIPAL PROVISIONS

The approach taken in this bill would hinge mainly on State action to deal with air pollution problems within air quality control regions designated by the Department of Health, Education, and Welfare. In brief, the States would be responsible for setting air quality standards for such regions and for developing and implementing plans to meet those standards. This means that it will be up to State governments to determine, first, the maximum concentrations of pollutants that will be permitted in the air in such regions during given time periods, and second, the extent to which pollution sources in a region must be controlled to meet the regional air quality standards.

The Department of Health, Education, and Welfare would assist the States by publishing air quality criteria and information on recommended control technology; moreover, the Department would be given responsibility for determining whether State standards are adequate and consistent with the purposes of the bill. In addition, the Department would be empowered to initiate action to insure both the development and implementation of air quality standards if action at the State level is not consistent with the purposes of the bill.



The bill would require the Department to delineate the broad atmospheric areas of the Nation, mainly on the basis of those meteorological and topographical factors that influence the diffusion and transport of pollutants in the air. Then, after consultation with State and local agencies, the Department would be empowered to designate air quality control regions. Such regions could include parts of two or more States or could lie entirely within a single State. In either case, each one would include a group of communities affected by a common air pollution problem.

To assist the States in setting air quality standards which will be adequate for the protection of public health and welfare, the Department would continue to develop and publish air quality criteria reflecting the best available scientific data on the adverse effects of individual pollutants and combinations of pollutants. The bill would require that such criteria also reflect available knowledge of atmospheric and other environmental factors that may influence the effects of air pollutants on health and welfare. In addition, the bill would require that appropriate advisory committees and Federal departments and agencies be consulted during the development of criteria and that criteria which have already been issued be reevaluated and, if necessary, modified and reissued in accordance with these new requirements.

The bill would also direct the Department to develop and publish detailed information on the status and cost of recommended techniques for preventing and controlling air pollution, including cost-effectiveness analyses of alternative methods. Consultation with appropriate advisory committees and Federal departments and

agencies would be a mandatory step in the development of this information. There can be no doubt that such information would be useful both to State and local control agencies and to industry. This information would be intended to help State governments develop and implement plans for achieving air quality levels consistent with the Department's published criteria of the adverse effects of air pollution.

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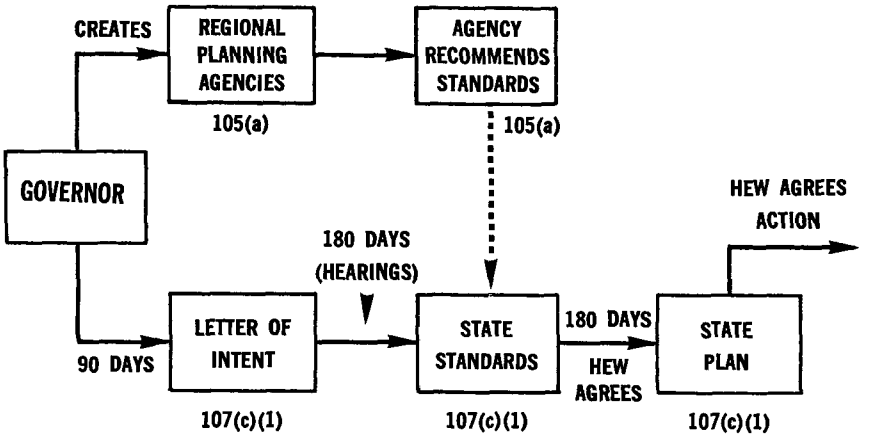
IF GOVERNOR ACTS



The publication of air quality criteria and emission control data would be the signal for States to begin developing air quality standards and plans for implementing the standards in air quality control regions designated by the Department. Each State would be given 90 days to file a letter indicating its intent to set air quality standards for any portion of an air quality control region lying within its boundaries. The States would have 180 days after the filing to set such standards and another 180 days after the standards are set to develop plans for implementing the standards. In all cases, the standards and plans for implementation would be submitted to the Department for evaluation. If the standards are found to be consistent with the applicable air quality criteria and recommendations on control technology, and if the plans for implementation would insure that the standards could be met within a reasonable time, then those standards and plans would become effective in the air quality control region for which they were developed.

This same procedure would have to be followed for each class of pollutants for which the Department publishes air quality criteria and control technology data. This means that each time new criteria are published, States would repeat the standard-setting procedures with respect to the new class of pollutants. Whenever criteria and recommended control techniques are revised pursuant to section 106(c) of the act, it is expected that the States will revise and reissue their ambient air standards and plans for implementation thereof accordingly.

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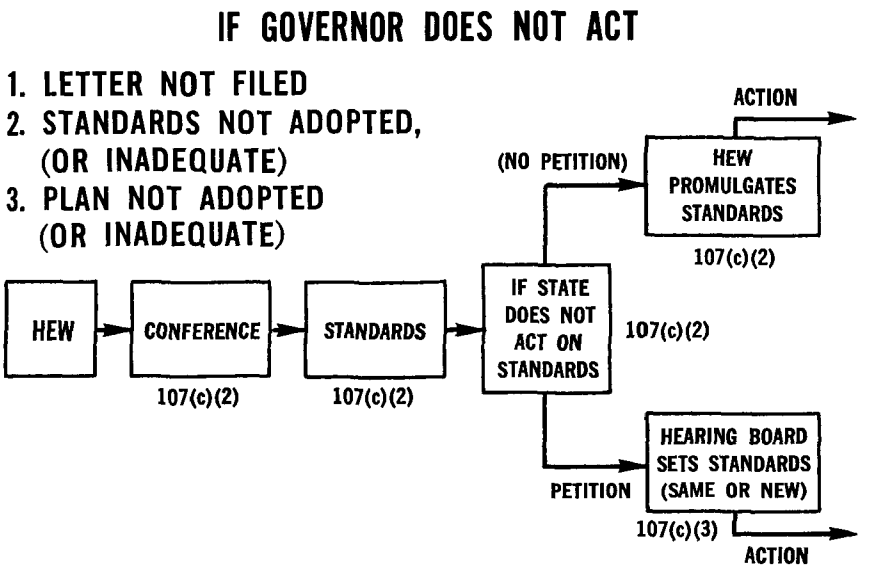

Under the provisions of the bill, if a State fails to file a letter of intent or fails to establish air quality standards, or if the Department finds that the standards established for any part of a designated air quality control region are not in accord with the requirements of the bill, the Department would be empowered to initiate action to insure the development of appropriate standards. The Committee expects that this residual power in the Secretary of HEW will seldom, if ever, be used, since the States are expected to take the necessary steps to establish and enforce air quality standards. If, however, a State fails to take appropriate action, the Department is empowered under the bill to take the necessary action to protect health and welfare expected of the State, particularly where interstate pollution is involved.

The Department would first hold a conference with appropriate State and local agencies and other interested parties and could then develop and publish standards which would become effective 6 months after publication unless an affected State requests a hearing be held. The request may be made either within the 6-month period or up to 30 days after promulgation. On receiving a request for such a hearing, the Secretary must call a hearing and appoint a board of five or more persons, including representation from the States involved, the Department of Health, Education, and Welfare, and other Federal departments and agencies which have a substantial interest in the subject. The hearing board would receive testimony from State and local air pollution control officials and other parties affected by the proposed standards and would recommend that the standards either be approved or modified. The hearing board would be given 90 days to report its findings, unless the Secretary found that a longer period was necessary. The hearing board's recommendations would be binding; if modification of the standards is recommended, they would have to be modified.

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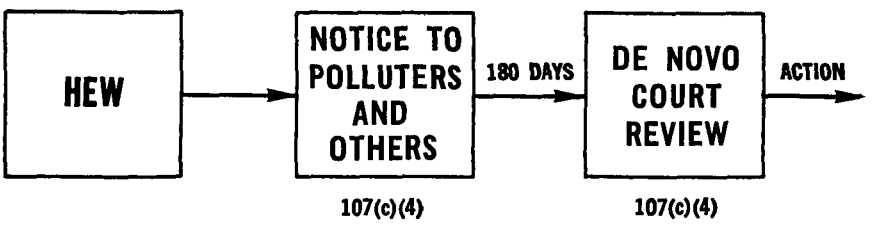
IF ACTION INADEQUATE

(AIR QUALITY BELOW STANDARDS, AND GOVERNOR NOT ENFORCE)



On completion of the standard-setting procedures, States would be expected to begin action to enforce the standards. Enforcement action would be taken at the Federal level (except under present abatement procedures) only if air quality in a designated region falls below the air quality standards for the region and if the Secretary finds that a State has not taken reasonable action to implement the standards. The bill would require that 180 days' notice be given before Federal action is initiated. Then, with respect to interstate pollution, the Attorney General could take

action in court on request from the Secretary of Health, Education, and Welfare; with respect to intrastate pollution, such action would be taken, or assistance in State action would be provided, only on request from the State involved. In either instance, the court in which action is taken would be required to make a complete review of the applicable air quality standards and to consider the economic and technical feasibility of complying with such standards in making its judgment.

In order to assure that the Secretary will have available the broad expertise of the entire Federal Government in carrying out his responsibilities under this Act, he is directed in many instances to consult with appropriate advisory committees and Federal departments and agencies. Your Committee particularly intends that the resources of the Department of Commerce will be fully utilized in areas involving atmospheric conditions and economic feasibility.

AIR QUALITY CONTROL REGIONS, CRITERIA, AND CONTROL TECHNIQUES

The most important objective of the bill is to insure that air pollution problems will, in the future, be controlled in a systematic way. To this end, the bill contains provisions intended to insure that control action will be taken in accordance with the regional nature

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of the air pollution problem and that sources of air pollution will be controlled to the extent consistent with available knowledge of the adverse effects of pollutants on health and welfare and with available control technology. The bill would give the Secretary of Health, Education, and Welfare the responsibility for defining these parameters. States would not be required to take any action until air quality control regions have been designated and until there has been an initial publication of air quality criteria and information on control technology.

Sections 106(b) and (c) require the Secretary to issue to the States criteria of air quality and recommended pollution control techniques. The sound administration of these provisions is the sine qua non to effective air pollution control. These criteria and recommended control techniques set the guidelines for subsequent State action.

In order to achieve cleaner air with the minimum possible economic cost or disruption, both the criteria and recommended con-

trol techniques will have to be based upon the most careful studies and analysis. They must have a substantial evidentiary backup, so that they may be relied on by the responsible State and local authorities in developing effective and reasonable air pollution abatement programs. They must permit the maximum possible flexibility so that each area may pick the means most suitable to it for resolving its pollution problems.

It is important that the Secretary call to the attention of the States in connection with his recommendation of control techniques, the various methods which may be used to achieve cleaner air, and provide information as to the economics of the more significant of these methods. Thus, for example, it may be possible to remove a pollutant from a fuel, or from stack gases, or to so disperse the pollutant through the use of high stacks so that ground level concentrations are lessened by the stack emissions. The careful selection from among these various methods even within an area may greatly reduce the economic disruption involved and permit more rapid achievement of improved air quality.

Any previously issued criteria must be reconsidered in the light of these requirements and objectives and the procedures called for by section 106. There should be no hesitancy in revising such criteria as a result of these changes in the law.

ATMOSPHERIC AREAS

The first requirement is that the Secretary define the Nation's atmospheric areas on the basis of such factors as climate, meteorology, and topography. A period of 1 year is allowed for the Secretary to define these atmospheric areas; the committee believes that this period is more than adequate, particularly in the light of the knowledge and experience available to the Secretary through other agencies of the Government, such as the Weather Bureau and the Atomic Energy Commission.

AIR QUALITY CONTROL REGIONS

The actual pattern of regional activity will be determined by the designation of air quality control regions. The Secretary is required to make such designations after consultation with State and local au-

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thorities, but no later than 18 months after enactment of the legislation. This period is also more than adequate, in the committee's judgment. Each region should encompass those com-

munities which, because of the extent of urbanization and industrialization, meteorological factors, and so on, are affected by a common air pollution problem requiring uniformity of control action. In designating the regions, the Secretary will be required to consider existing jurisdictional boundaries, urban-industrial concentrations, and any other factors which will affect the adequacy of regional control efforts. It is expected that the Secretary will consider, among other things, the boundaries of air basins or regions already designated by State governments.

The committee learned that in at least one State (Colorado) air pollution regions have already been set under State law, and there is some concern that those regions designated by the Secretary will not be coterminous with them, thus raising problems of the administration of standards where the regions differ. The committee expects the Department of Health, Education, and Welfare to consult with proper officials of the States to assure that maximum consideration is given to the regions established or that may be established in such States, and to the State law under which they were established.

AIR QUALITY CRITERIA

Since the prime purpose of controlling air pollution is to protect public health and welfare, it is essential that scientific knowledge of the adverse effects of air pollutants be available in a form which can help control agencies develop and adopt standards and regulations. To this end, a requirement that the Secretary develop and issue air quality criteria was included in the Clean Air Act of 1963. This requirement is retained in the proposed new legislation, but with some modification in the procedures to be followed by the Secretary.

The principal change is the inclusion of a requirement that the Secretary consult with appropriate advisory committees and Federal departments and agencies before issuing criteria. This should not be construed as diminishing the Secretary's responsibility; it is expected that the Secretary will make the final determination on all questions involved in criteria development.

The committee expects that in the development of air quality criteria under subsection (b) as well as in formulating recommendations indicated by such criteria, the Secretary will utilize the resources of qualified Federal departments and agencies to the fullest extent practicable, including those within the Department of Commerce. For example, with regard to atmospheric conditions the Environmental Science Services Administration has been con-

ducting the basic national program in meteorological measurements and predictions. The Business and Defense Services Administration is well qualified to analyze questions of economic feasibility by virtue of its continuing evaluation of processes, costs, investment, and financing of industrial production and commercial enterprise, economywide as well as on an industry-by-industry basis. Moreover it is intended that the resources of the Department of Commerce be utilized in conducting the comprehensive studies provided for under sections 211 and 305.

Testimony by officials of the Department of Health, Education, and Welfare indicated that criteria for several important types of pollutants

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are in advanced stages of development. While the committee recognizes that the new requirements for consultation with advisory groups and Federal departments and agencies may delay the issuance of these criteria to some extent, it is expected that the Department will make every effort to expedite the procedures. The only criteria issued thus far, those pertaining to the sulfur oxides, would have to be reevaluated in accordance with the new requirements and, if necessary, modified and reissued.

Under the proposed legislation, air quality criteria are of much greater importance than they have been until now. The issuance of such criteria is among the prerequisites for the development of air quality standards by the States. It is essential, then, that there be no confusion about the purpose of air quality criteria. They are not regulations; as Dr. John T. Middleton, Director of the National Center for Air Pollution Control, emphasized in his testimony, they are descriptive, rather than prescriptive. They describe the effects that can be expected to occur whenever and wherever the ambient air level of a pollutant reaches or exceeds a specific figure for a specific time period. Thus, they define the health and welfare considerations that must be taken into account in the development of standards and regulations. Economic and technical considerations have a place in the pattern of control activity but not in the development of criteria. Air quality criteria should provide a clear statement of how well air pollution should be controlled in order to safeguard the public health and welfare, economic and technical factors notwithstanding. If control technology is not adequate, it must be improved. This legislation contains ample provision for evaluation of existing technology and for the development of new and better tools. In short, it is the committee's view that air

quality criteria shall reflect an honest appraisal of available knowledge relating to the health and welfare hazards of air pollution.

RECOMMENDED CONTROL TECHNIQUES

The legislation gives the Secretary a major new responsibility for the publication of information on the status and cost of technology for the control of air pollution. The publication of such information is still another prerequisite to the setting of air quality standards; that is, after publication of air quality criteria for a given type of pollutant, information on control technology applicable to sources of that type of pollutant must be published before the States will be obligated to begin setting air quality standards for that type of pollutant. Though the legislation contains no requirements as to the time of publication of control technology information, the committee expects that information on the control of sources of a given type of pollutant will be made available as soon as possible. This may occur after the publication of air quality criteria for that type of pollutant; however, simultaneous publication would be desirable.

The requirement of the proposed legislation is that the Secretary shall, after consultation with appropriate advisory committees and Federal departments and agencies, issue information on the cost and effectiveness of those recommended control techniques whose application is necessary to achieve the levels of air quality set forth in the Secretary's air quality criteria. Thus, the Secretary is required to

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recommend certain control techniques. During hearings, objections were raised on the ground that a private firm might wish to employ a control technique that has not been recommended by the Secretary. The committee does not believe that the language of the bill on this point precludes the use of techniques not recommended by the Secretary.

The purpose of this provision is to insure that air pollution control agencies and other interested parties have access to enough technical data to permit them to make an informed and intelligent choice among the various techniques which could be used to reduce air pollution from any given source. The choice of control techniques is left up to those who are actually responsible for sources of air pollution, but the Secretary is assigned the duty of providing detailed information on control techniques which he believes

are applicable. This should provide private firms sufficient information to use as a basis for planning their control efforts.

There is, however, a real limitation on the extent to which control agencies and industries can rely on the information published by the Secretary. This information must be their servant, not their master. The extent to which pollution sources will have to be controlled to achieve air quality levels set forth in the Secretary's air quality criteria will necessarily vary from one place to another, depending on such factors as the number and size of sources of a pollutant and meteorological conditions. The Secretary can do no more than provide data on available control techniques; under the proposed legislation, States must determine which control techniques or combinations of techniques will achieve the necessary degree of abatement with a particular air quality control region.

AIR QUALITY STANDARDS

The provisions relating to the adoption of air quality standards are the heart of the legislation. These provisions are largely adapted from existing Federal law in the field of water pollution control. They place a very high degree of reliance on action by State governments. In most States, implementation of the standard setting and enforcement provisions will clearly require State governments to take a much more active role in dealing with the problem of air pollution than they have played in the past.

The States would be required to adopt air quality standards and enforcement plans for each type of air pollutant for which the Secretary publishes air quality criteria and control technology data. Following the publication of such information on a given class of pollutants, each State would have 90 days to notify the Secretary of its intent to set air quality standards for those pollutants. Each State would be obligated to set such standards for any portion of a designated air quality control region lying within its boundaries.

After a letter of intent is filed, a State would have 180 days to set the required air quality standards and another 180 days after the standards are set to develop plans for implementing the standards. All States would have to submit their standards and implementation plans to the Secretary for evaluation.

To warrant approval by the Secretary, air quality standards for a given class of pollutants must be consistent with the Secretary's

air quality criteria and control technology data for those pollutants. This means, in the opinion of the committee, that such standards must call for air quality levels which, based on the Secretary's criteria, are at a minimum adequate for the protection of public health and which can be achieved through the application of feasible control techniques.

Where a designated air quality control region includes portions of two or more States, the possibility exists that the respective States may adopt differing standards of air quality. It is the committee's view that no State should be permitted to set air quality standards which, even if fully implemented, would impair air quality in any portion of another State below the standards set by that other State.

With respect to implementation plans, the bill requires that plans include a means of enforcement by State action. This means that the plans must insure that the standards can be met within a reasonable time. Since air quality standards can be met only by preventing or controlling pollution at its sources, plans for implementing air quality standards for a given class of pollutants should include emission standards applicable to the sources of those pollutants—or at least to those sources for which the Secretary has published information on control technology—and a timetable for enforcement of such emission standards. Where a State, because of a lack of sufficient information on pollution sources in a designated region, cannot determine the extent to which those sources must be controlled, it is expected that the implementation plans will include a timetable for obtaining the necessary information and for subsequent adoption and enforcement of emission standards.

If a State fails to (1) file a letter of intent within 90 days; (2) establish standards within 180 days; or (3) file a plan for implementation and enforcement within 180 days, the Secretary is authorized to perform these functions for the air quality control regions within that State. When standards have been set, either by a State or by the Federal Government, the Federal Government will have authority to enforce the standards in the absence of effective State action. First, the Secretary could hold a conference with representatives of appropriate Federal departments and agencies, interstate agencies, States, municipalities, and industries. Following such a conference, the Secretary could develop and publish air quality standards and plans for implementation and enforcement.

The Secretary's standards and plan for implementation and

enforcement would become effective 6 months after publication unless an affected State requests a hearing be held; such request may be made either within the 6 month period or up to 30 days after promulgation. In receiving a request for such a hearing, the Secretary must call a hearing and appoint a board of five or more persons, including representation from the States involved, the Department of Health, Education, and Welfare, and other Federal departments and agencies having a substantial interest in the subject matter. The hearing board would receive testimony from State and local air pollution control officials and other parties affected by the proposed standards and would recommend that the standards either be approved or modified. The hearing board would be given 90 days to report its findings, unless the Secretary found that a longer period was necessary. The hearing board's recommendations would be binding; if modification of the standards is recommended, they would have to be modified.

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On completion of the standard-setting procedures, States would be expected to begin action to enforce these standards. State action would presumably include enforcement emission standards for the control of air pollution sources, or provisions for setting such standards, and a schedule for enforcing them. Enforcement action would be taken at the Federal level only if air quality in a designated region falls below the air quality standards for the region and if the Secretary finds that a State has not taken reasonable action to implement the standards. The bill would require that 180 days' notice be given before Federal action is initiated. Then, with respect to interstate pollution, the Attorney General could take action in court on request from the Secretary of Health, Education, and Welfare; with respect to intrastate pollution, such action would be taken only on request from the State involved. In either instance, the court in which action is taken would be required to make a complete review of the applicable air quality standards and to consider the economic and technical feasibility of complying with such standards in making its judgment.

IMMINENT ENDANGERMENT

Under this provision the Secretary will have authority to proceed immediately to court for abatement of any pollution that creates substantial and imminent public health endangerment. The committee feels this authority is necessary during the standards development period, due to the necessary passage of time

which will occur prior to establishment of enforceable standards.

This provision is intended to provide a remedy in an emergency situation and where the responsible State and local authorities have not taken the necessary action. It is not intended as a substitute procedure for chronic or generally recurring pollution problems, which should be dealt with under the other provisions of the act. Where, however, there is an unusual atmospheric inversion or other extraordinary grouping of circumstances creating a substantial and imminent danger to public health such as occurred in the Donora incident in 1948, or in London in 1952 or 1962, then the public must be protected and this section provides for appropriate action by the Secretary for that purpose. Unlike the other provisions of section 107, where technological and economic feasibility are a prerequisite to sound regulation, where an emergency incident is in the making which could seriously jeopardize the public health, the Secretary may obtain the necessary injunction regardless of technological and economic feasibility.

This provision directs itself to the control of pollution sources which are contributing to air pollution under conditions resulting in an imminent and substantial endangerment to public health. Under this provision the Secretary would have absolute authority to take the required control steps to avert disaster episodes such as occurred in the heavily industrialized Meuse Valley of Belgium in 1930; in Donora, Pa., in 1948; in New York City in 1953; and in London in 1952 and 1962.

The committee realizes, however, that the Secretary must have, as he said in testimony, the opportunity to know a great deal about the air pollution problem of an area, and the best ways to proceed in that area to abate pollution—he cannot be expected to make such an important decision as this in a vacuum, and in such a situation he will

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require the utmost cooperation from States, local governments, and industry. The committee believes the Secretary's statement on this matter indicates this difficulty well, and the procedures he would follow are reasonable. The Secretary stated (hearings, p. 204) 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, primarily responsible for the quality of the air in their jurisdictions, to develop appropriate air-monitoring systems and emergency procedures for curtailing sources of pollution.

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.

MOTOR VEHICLE EMISSIONS

Public Law 89–272, enacted October 20, 1965, authorized the Secretary of Health, Education, and Welfare to establish national standards applicable to emissions from new motor vehicles and new motor vehicle engines. That legislation contains no explicit statement concerning the preemption of State laws on this subject, and no statements concerning this problem were made on either the House or the Senate floor when the bill was debated.

The report of this committee on the bill (H. Rept. 899, 89th Cong.) contains the following statement:

> The committee is convinced that motor vehicle exhaust control standards on a national scale are necessary and would be of benefit to the entire country. * * * While the committee is cognizant of the basic rights and responsibilities of the States for control of air pollution, it is apparent that the establishment of Federal standards applicable to motor vehicle emissions is preferable to regulation by individual States.

The report of the Senate committee on the bill (S. Rept. 192, 89th Cong.) contains the following two statements:

> In view of the fact that the automobile is one of the principal sources of air pollution and manufacturers have the capability of incorporating air pollution reduction facilities in their vehicles, there is no apparent reason why the entire Nation should not benefit from such advances. Also, it would be more desirable to have national standards rather than for each State to have a variation in standards and requirements which could result in chaos insofar as manufacturers, dealers, and users are concerned (p. 6).
>
> The committee has found that the automotive industry has the capability for limiting the emissions of hydrocarbons and carbon monoxide from both the crankcase and exhaust systems of gasoline powered motor vehicles and found a willing-

ness to accept legislation which would establish national standards, and it is the

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hope of the committee that individual States will accept national standards rather than additionally impose restrictions which might cause undue and unnecessary expense to the user. (P. 8.)

Since the enactment of Public Law 89–272, the Secretary of Health, Education, and Welfare has established national standards applicable to emissions from new motor vehicles for the 1968 and subsequent model years. The Congress is therefore presented directly with the question of the extent to which the Federal standards should supersede State and local laws on emissions from motor vehicles.

Rather than leave this question to the uncertainties involved in litigation, the committee has agreed, with modifications hereafter discussed, to the provision contained in the bill as passed by the Senate providing explicitly (section 208(a)) that State laws applicable to the control of emissions from new motor vehicles or new motor vehicle engines are superseded. The committee feels that a provision such as this is necessary in order to prevent a chaotic situation from developing in interstate commerce in new motor vehicles.

WAIVER OF PREEMPTION

As passed by the Senate, section 208(b) of the Clean Air Act proposed to provide for waiver by the Secretary of the application of subsection (a) (providing for preemption of State laws) in the case of California, upon a finding that compelling and extraordinary conditions require more stringent standards and that the State's standards and enforcement procedures were consistent with the intent of section 202(a) of the act, including economic practicability and technological feasibility. Although the situation may change, in the 15 years that auto emission standards have been debated and discussed, only the State of California 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.

In other words, as passed by the Senate, section 208(b) provides for a waiver of preemption in the case of California, so that California could be permitted to establish (1) more stringent

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standards applicable to emissions covered by Federal standards, (2) standards applicable to emissions not covered by Federal standards, and (3) enforcement procedures and standards with respect to emissions differing from Federal enforcement procedures and standards.

The manufacture of automobiles is a complex matter, requiring decisions to be made far in advance of their actual execution. The ability of those engaged in the manufacture of automobiles to obtain clear and consistent answers concerning emission controls and standards is of considerable importance so as to permit economies in production. Mr. Thomas C. Mann, president of the Automobile Manufacturers Association presented to the committee during his testimony a summary of the problems that would be faced by the industry if required to comply with both Federal and California standards, separately administered (hearings, pp. 482–483):

> The process of fixing and administering emission standards for new cars is at best a complex one. Judgments must be made, often on the basis of incomplete scientific evidence, on
>
> [p. 21]
>
> the question of which pollutants endanger health and welfare and at what levels it is technologically and economically feasible to fix emission rates.
>
> In a program of this kind many questions arise. What are the requirements for testing new vehicles as they are produced each year? Precisely how are the tests to be performed and under what conditions? What are the rules for interpreting the scientific data developed in the testing process?
>
> What kind of a certificate will be issued by the authorities? How can emissions performance of vehicles in actual use be determined and how is this data to be correlated with data developed by testing vehicles on the proving grounds?
>
> What instrumentation will be used for testing? To measure emissions, will the so-called "mass" emissions control method based on absolute volumes be used or the "concentration" method based on percentages—having in mind that the two methods do not produce identical results?
>
> Moreover, there are various questions of interpretations of the pertinent laws and regulations, some of which are written in very broad terms and some of which contain ambiguities. How are these to be resolved?
>
> Uniform answers to these and other administrative ques-

tions inherent in Government controls are most important. The ability of the industry to get clear and consistent answers to questions such as these so that companies can make their plans and initiate in time their programs required for compliance can be as important as what the answer is.

The committee feels that the problems faced by the automobile manufacturing industry arising out of identical Federal and State standards, separately administered, would be difficult for the industry to meet since different administration could easily lead to different answers to identical questions. Similarly, the problems arising out of different standards applicable nationwide (except California) and to California, even though identically administered, would also lead to difficulties.

If, however, both different standards and separate administration are permitted, the difficulties faced by manufacturers would be compounded enormously. While manufacturers could meet these problems by building vehicles that meet whichever standard is the more stringent, this would lead to increased costs to consumers nationwide, with benefit only to those in one section of the country.

The committee therefore decided to provide for uniform administration of standards for motor vehicle emissions, by providing that the Secretary of Health, Education, and Welfare shall administer the program of control of automotive emissions; however, in recognition of the unique problems facing California as a result of its climate and topography, the committee has provided that upon a showing by California that it requires more stringent standards than the nationwide standards otherwise applicable, the Secretary may prescribe standards with respect to such State more stringent than, or applicable to emissions or substances not covered by, the national standards. These standards are required to be consistent with the

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other provisions of title II, and are to be prescribed, giving appropriate consideration to technological feasibility and economic costs.

FUEL ADDITIVES

The bill would provide new authority pertaining to fuel additives, in the form of a requirement that fuel manufacturers register such additives with the Secretary of Health, Education, and Welfare. This is intended to provide an opportunity for full assessment of the effects of such additives on the environment and on public health. It is clearly in the best interests of both the

public and industry to evaluate the effects of additives already in widespread use and to provide a mechanism for advance evaluation of proposed new additives before they reach the environment.

These provisions of the bill would require manufacturers to furnish the Secretary such information as he finds necessary concerning the characteristics and composition of fuel additives and any additional information which he may reasonably require. It is anticipated that the Secretary will, after giving interested parties an opportunity to present their views, promulgate regulations prescribing the types of information he will require for registration. Such regulations could, of course, be modified if experience with this provision indicates that changes are necessary. Since fuel additives released into the environment from combustion sources may contaminate not only the air, but also water, soil, vegetation, and so on, it is expected that the Secretary will require manufacturers to furnish enough information to evaluate not just the air pollution problems arising from the use of fuel additives, but to assess the total effect on the human environment and human health and welfare.

The prime purpose of this proposal is to insure full access to the technical information needed to evaluate the possible health hazards of such materials. Too often, new contaminants enter the environment and are widely dispersed before recognition that they may endanger human health.

The bill would not, in itself, require registration of all fuel additives. It would empower the Secretary to designate, by regulation, those fuels or uses of fuels involving additives, for which registration will be required. The Committee expects that registration will be required with respect to additives used in motor vehicle fuels. The use of such fuels, according to all the information available to the committee, is the most important single means by which fuel additives are currently released into the environment. The Secretary would also have authority to require registration of additives to other fuels, and it is expected that he will exercise this authority with respect to any others where evaluation of known or suspected health hazards is deemed necessary.

COOPERATIVE ACTIVITIES AND UNIFORM LAWS

Subsection 102(c) of the existing law purports to give the consent of the Congress to two or more States to negotiate agreements or compacts for cooperative efforts in the field of air pollution control, but provides that no such compact shall be binding until it has been approved by the Congress. The committee has

deleted this subsection as unnecessary, since it is merely a restatement of the general con-

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stitutional provision applicable to all compacts (art. I, sec. 10), and since States do not require the consent of the Federal Government to enter into negotiations.

The committee's action is not intended to discourage State efforts to work together in dealing with interstate air pollution problems. On the contrary, groups of two or more States are encouraged to mount cooperative efforts. In the committee's opinion, however, such efforts should be focused on problems in specific metropolitan areas, in which all communities clearly share a common air pollution problem. In practice, this will necessarily mean that the States involved in a particular compact or agreement should be contiguous and that a portion of each State should be within the metropolitan area covered by the compact or agreement.

RESEARCH, INVESTIGATIONS, TRAINING, AND OTHER ACTIVITIES

Increased research activities are essential to provide an improved technological basis for meaningful progress in air pollution control.

Section 103, as reported, requires the Secretary to conduct a research program relating to the causes, effects, extent, prevention, and control of air pollution, and to encourage and assist pollution control agencies, institutions, and individuals in the conduct of such activities. It also directs him to give special attention to pollution resulting from the combustion of fuels. It provides for advisory committees to assist the Secretary in administering the research program. The broad authority granted the Secretary to enable him to conduct such a program is carried over intact from existing law. This authority includes the ability to collect and publish information; to cooperate with other Federal agencies, with air pollution control bodies, industries, and institutions; to make grants to public or nonprofit private agencies, institutions, and organizations, and to individuals; to contract with such groups; and to provide fellowships and other forms of training. The committee has retained the location of all research provisions in a single section of the bill, as in the case in the existing law. This allows the Secretary needed flexibility in the management of research activities so that he may employ available manpower and funds efficiently.

To this end the language of subsection 103(a) of the Clean Air Act was amended as follows:

Paragraphs (4) and (5), which specifically direct research activities to be conducted in the areas of removal of sulfur from fuels, reduction of emissions of sulfur oxides produced by the combustion of sulfur-containing fuels, and control of vehicle fuel emissions and evaporation, have been deleted.

A new paragraph (4) has been substituted for the above paragraphs, which authorizes the same research activities, but in more general terms, and also authorizes additional research activities relating to means of controlling combustion byproducts of fuels.

A new paragraph (5) has been added. It requires the Secretary to establish technical advisory committees, composed of air pollution experts, to provide assistance in administering the research program, and is identical to the language contained in paragraph 104(a) (6) of S. 780 as passed by the Senate.

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The remainder of the provisions found in section 104 of the Senate-passed bill have not been adopted. The committee considers them to be unnecessary since section 103 of existing law contains sufficient authorization for the Secretary to initiate and accelerate the large-scale research activities demanded for the proper discharge of his responsibilities under this act.

Research is the key to effective air pollution control. The amendments to S. 780 to eliminate 104 were not in any way intended to lessen the emphasis on research. Rather, they were intended to eliminate provisions which were considered duplicatory of section 103, and therefore unnecessary.

Under section 103 the Secretary has full authority to enter into the necessary contracts with public and private institutions and organizations for research work on all aspects of air pollution control. This includes means of reducing pollution and means of measuring air quality. It includes the economics as well as the technology of pollution control including such matters as the marketing of byproducts where that may make a particular method of pollution control economically feasible. It is expected that the Department will make maximum use of the expertise of other Federal departments such as the Departments of Commerce and Interior in research programs conducted under this section.

In addition to research, the Secretary is authorized to take the

necessary developmental steps, including, where appropriate, the contracting for the building of pilot plants and demonstration plants. Further, the Secretary is specifically encouraged to use Federal facilities, where possible and appropriate, for air pollution research purposes.

Among the most critical problems of pollution control are the pollution problems relating to the burning of fuels. It is the intention of this legislation that the Secretary pursue a most aggressive policy of research directed toward solving the pollution problems relating to the combustion of fuels.

The economy of the Nation depends on an adequate supply of low-cost energy. Only through technological breakthroughs can such a supply be assured consistent with our requirements for cleaner air. Since effective regulation therefore will depend upon such technological breakthroughs, this research must be of the highest priority. Further, while the language of the legislation is discretionary in terms of how the Secretary shall proceed with regard to research activities, the imperative nature of this work should clearly be understood by all, including those who will administer the legislation.

INTERSTATE AIR QUALITY AGENCIES OR COMMISSIONS

The air quality standards which will be established under this legislation will require careful planning to insure that they are tailored to the needs of the designated air quality control regions, the types of pollution and the damages it is causing, and the technological and economic feasibility of proposed controls. In addition, the activities of different jurisdictions will have to be coordinated, so that standards for all portions of a particular region are rationally related and effective. The bill provides for support of planning bodies to assist States into bringing such regional control efforts to fruition.

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Recognizing the administrative and political difficulties inherent in the establishment of effective interstate air pollution control planning agencies, section 105 of the bill authorizes the Secretary to pay up to 100 percent of the air quality planning program costs of any interstate agency designated by the Governors of the affected States under section 105(a) for up to 2 years. After this initial period, grants are authorized for up to three-fourths of the air quality planning program costs.

The interstate agency is to concern itself with recommending to

the Governors of the participant States standards of ambient air quality and plans for implementation and enforcement of emission controls required to achieve the recommended standards of air quality.

In the absence of any action by the States involved in an interstate air quality control region designated pursuant to section 106(a)(2), the Secretary is authorized to designate an air quality planning commission for the purpose of recommending air quality standards and a plan for their implementation. The interstate commission, when established by the Secretary under section 105(b), is essentially an arm of the Federal Government in that it is designed to assist the Secretary in establishing standards and plans for implementation. Provision is made, however, for consultation with the affected States and representation of appropriate units of government within the area. In this way, even in the event the States fail to act, the Secretary can utilize the available information regarding State and local conditions and maximize the effectiveness of any standards or plans which may be adopted either at the State or Federal level.

GRANTS FOR SUPPORT OF AIR POLLUTION PLANNING AND CONTROL PROGRAMS

Section 104 of the bill expands the provision for grants for development and maintenance of State and local pollution programs to include grants for the planning of programs for the prevention and control of air pollution and of programs for the implementation of air quality standards. As revised, the provision authorizes grants up to two-thirds of the cost of planning, in addition to developing, establishing, or improving such programs, and grants in an amount up to one-half of the cost of maintaining them.

The revised section also provides up to three-fourths of the cost of planning, developing, establishing, or improving regional air quality control programs (defined as a program for the prevention and control of air pollution or the implementation of air quality standards authorized by this act, in an area including the area of two or more municipalities whether in the same or different States), and up to three-fifths of the cost of maintaining such programs.

Any grant recipient must be capable of carrying out certain conditions specified in the bill. For example, a pollution control agency which is administering a regional control program which is interstate must provide for adequate representation of appropriate State, interstate, and local interests.

The committee made one additional change in existing law. Under the Clean Air Act, Federal grant funds to air pollution programs in any one State were limited to no more than 12½ percent

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of the total funds appropriated or allocated for such financial support. This figure has been changed to 10 per cent, since the committee feels that the problem of air pollution—although differing somewhat in its magnitude, character, and effects—is present throughout our country; the new figure is intended to provide additional assurance that all areas experiencing pollution have adequate access to financial support by the Federal Government.

ABATEMENT

Existing law provides for abatement actions involving sources of air pollution. Upon request of appropriate authorities, or in the case of interstate air pollution, on his own motion, the Secretary may call a conference concerning air pollution adversely affecting health and welfare, with further procedures authorized thereafter in case the conference action does not suffice to lead to elimination of the pollution.

In order to provide all parties affected by an abatement action a greater opportunity to participate in the proceeding of the abatement action, the conference procedure has been revised. Notice of any abatement conference has been extended from 3 weeks to 30 days. At the time the notice is given a Federal report is to be made available which defines the matters to be set before the conference, and any data and/or recommendations which the Federal Government wishes to make.

In this manner the committee expects the Secretary to provide interested parties who may be affected by any abatement actions resulting from the conference, an opportunity to present their views relative to the Federal report and/or recommendations, and other pertinent information.

It is expected that the Secretary will provide more detailed regulations for these conferences and other hearings provided for in the act so that they will be carried out under standardized procedures. To the extent consistent with orderly and fair administrative practices, it is expected that those regulations will provide that all persons having a substantial interest in a matter under consideration, and whose participation would not simply be repetitious or cumulative, will be permitted to participate therein and

that adequate public notice will be provided to permit such persons to request the right to participate. This policy will provide the conferees with the broadest review of the pollution problems in a given area.

Time will be required for the establishment of air quality standards and their effective implementation. It is not intended that the time required to establish such standards interfere with the protection of public health and welfare.

Because of the nature of the air quality standards setting process, requiring criteria and control information as a triggering mechanism, many interstate and intrastate regions will continue to have interim air pollution problems. It is therefore essential that the Secretary continue to act expeditiously to abate pollution either on his own motion or at the request of a Governor in interstate situations, or at the request of a Governor in an intrastate situation.

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PRESIDENT'S AIR QUALITY ADVISORY BOARD AND ADVISORY COMMITTEES

The committee recognizes the need for participation by all segments of our national economy if air pollution control and abatement is to be achieved. For this reason there has been provided in the bill for a 15-member President's Air Quality Advisory Board to advise and consult with the Secretary on matters of policy relating to the programs of the Secretary conducted under the provisions of this act.

Appointed members are to be selected so as to be representative of State, interstate, and local governmental agencies and of public or private interests demonstrating an active interest in the various aspects of air pollution prevention and control and related problems, as well as other individuals who are expert in the field of air pollution.

The purpose of the Air Quality Advisory Board and the advisory committees is twofold. First, it is to provide a means whereby the Secretary may obtain the best possible advice and information available from sources outside the Government. Second, it is to provide a means of liaison with the various communities including State and local authorities, medical and scientific groups, and industrial groups, who are concerned with the air pollution problem. The representation both on the Board and on the committees should permit the Secretary fully to obtain the views of

those persons familiar with the regulatory, medical and scientific, technical, and economic problems of air pollution abatement, of those communities which bear the brunt of our air pollution problems, and of those industries who will bear the brunt of the necessary regulation.

Similarly, the representation should permit an easy and effective liaison between the Secretary and the various affected groups so that they may frankly discuss their common problems and thereby achieve the most meaningful and reasonable solutions to the difficult problems which are posed by the Nation's rapid rise in air pollution. The Air Quality Advisory Board and the advisory committees thus also would provide a means for exchange of views among the various groups involved. It would be hoped that, by each becoming more familiar with the problems and proposed solutions of the others, a common approach could be developed toward effective air pollution abatement.

It is intended that the Secretary consult with the Air Quality Advisory Board and with the advisory committees on all major policy issues.

Additional technical advisory committees are authorized under this provision. Such advisory committees are to be established from time to time by the Secretary, in order to obtain assistance in the development and implementation of air quality criteria, recommended control techniques, standards, research, and development, and to encourage the continued efforts on the part of industry to improve air quality and to develop economically feasible methods for the control and abatement of air pollution.

The committee feels that these advisory committees should contain sufficient representation from the various groups concerned with air pollution, including State and local authorities, medical and scientific personnel, and industry experts in pollution abatement, to permit and enhance both effective and useful consultation between the Secretary and his associates and other interested parties.

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NATIONAL EMISSION STANDARDS STUDY AND AIRCRAFT EMISSIONS STUDY

The committee feels that the concept of national emission standards for stationary sources deserves further investigation as a supplement to the standard setting procedures provided in the bill.

For the purpose of further consideration of national emission standards, the committee amendments direct the Secretary to

undertake a 2-year study of the concept. It is expected that the Secretary will utilize the expertise of other Government agencies to the maximum feasible extent in conducting this study. At that time further consideration should be given to the concept.

The committee has also provided for a study by the Secretary of emissions from jet and piston-engine aircraft, with a view to determining the advisability and feasibility of controlling such emissions and the establishment of national standards with respect thereto. Such a study is needed, in view of the substantial increase in air traffic anticipated in the future. Of course, the problem of control of emissions in the case of aircraft presents more difficulties than in the case of automobiles, since safety and reliability of engine performance is crucial to aircraft operations. The committee expects the Department to work closely with the Federal Aviation Administration, NASA, and other interested departments and agencies in the conduct of the study called for by this amendment.

COMPREHENSIVE ECONOMIC COST STUDIES

In order to provide the committee a basis for evaluating programs authorized by this act and the development of new programs, the Secretary is required to make a detailed estimate of the cost of carrying out the provisions of this act for a 5-year period beginning July 1, 1969. The report is to include (1) a comprehensive study of the cost of program implementation by affected units of government; and (2) a comprehensive study of the economic impact of air quality standards. In making these economic studies the Department will, of course, consult with other Federal agencies whose knowledge and experience will be of assistance.

In addition the Secretary is required to make a complete investigation and study to determine (1) the need for additional trained State and local personnel; (2) means of using existing Federal training programs to train such personnel; and (3) the need for additional trained personnel to develop, operate, and maintain those pollution control facilities designed and installed to implement air quality standards.

ADDITIONAL REPORTS TO CONGRESS

Section 306 of the bill requires the Secretary to submit reports to Congress which describe program accomplishments in connection with the act. The annual report is to include—

(1) The progress and problems associated with control of automotive exhaust emissions and the research efforts related thereto;

(2) The development of air quality criteria and recommended emission control requirements;

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(3) The status of enforcement actions taken pursuant to this act;

(4) The status of State ambient air standards setting, including such plans for implementation and enforcement as have been developed;

(5) The extent of development and expansion of air pollution monitoring systems;

(6) Progress and problems related to development of new and improved control techniques;

(7) The development of quantitative and qualitative instrumentation to monitor emissions and air quality;

(8) Standards set or under consideration pursuant to title II of this act;

(9) The status of State, interstate, and local pollution control programs established pursuant to and assisted by this act; and

(10) The reports and recommendations made by the President's Air Quality Advisory Board.

SECTION-BY-SECTION ANALYSIS OF S. 780, AS REPORTED

The following analysis of the sections of S. 780 discusses all of the recommended changes in the Clean Air Act of 1963 (Public Law 88–206) as amended by Public Laws 89–272 and 89–675. It describes in some detail the modifications which would be made in the Clean Air Act.

TITLE I—AIR POLLUTION PREVENTION AND CONTROL

Section 101. Findings and purposes

The purposes of this title are revised, by revising paragraph (b)(1), to include provisions to protect "and enhance the quality of" the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population.

Sec. 102. Cooperative activities and uniform laws

Subsection (c) of existing law, which expressed the consent of

the Congress to negotiations between States for the purposes of formulating compacts providing for cooperative to become effective after congressional ratification, has been deleted as unnecessary. A new subsection (c) has been substituted, expressing the intent of the Congress that no agreement or compact entered into by States subsequent to the enactment of the Air Quality Act of 1967 relating to air pollution control in an air quality control region shall provide for participation by a State which is not wholly or partially included within such a region.

The remainder of the section is unchanged, and directs the Secretary to encourage cooperative activities by States and local governments and to cooperate with and encourage cooperative activities by all Federal departments and agencies. The Secretary is also authorized to encourage the adoption of uniform State and local laws where practicable.

Sec. 103. Research, investigations, training, and other activities

The provision of subsection (a) (4) of the act, which requires the Secretary to specifically initiate, among others, a program of research

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directed toward the development of improved, low-cost techniques for extracting sulfur from fuels, and the provision of subsection (a) (5) of the act, which requires the Secretary to conduct research programs relating to the control of emissions from gasoline- and diesel-powered vehicles, and emissions of oxides of sulfur from sulfur-containing fuels, have been deleted. They have been replaced by a new subsection (a) (4), which requires the Secretary, in more general terms, to conduct and accelerate research in the control of fuel combustion byproducts, the removal of potential pollutants from fuels, and the control of evaporation of fuels. The new subsection (a) (4) includes all the authority previously contained in subsections (a) (4) and (5), and expands the authority of those subsections to cover all fuels and combustion byproducts thereof. In addition, a new subsection (a) (5) has been added, directing the Secretary to establish technical committees to examine and evaluate research progress and contracts and to insure the avoidance of research duplication.

Also, the provision of subsection (c) (2) of the act which authorizes the Secretary to compile and publish for informational purposes criteria relating to air pollutants which may be harmful

to the public health or general welfare has been deleted and included under subsection 106(b) of the bill.

The remaining provisions of this section are unchanged. Briefly, they require the Secretary to establish a national research and development program for prevention and control of air pollution, and for that purpose to conduct research, render technical service, and conduct investigations and research if requested to do so by appropriate air pollution control agencies, or to do so on his own initiative if the problem of air pollution is interstate in nature. For these purposes the Secretary is authorized to collect and make available information on the subject; to cooperate with all interested public and private agencies and institutions; to make grants for research, training, surveys, studies, and demonstrations; to contract for these purposes; to establish research fellowships; to collect and disseminate basic data on chemical, physical, and biological effects of varying air quality; to develop effective and practical processes, methods, and prototype devices for the prevention and control of air pollution.

Sec. 104. Grants for support of air pollution planning and control programs

This section amends section 104 of the existing act, by expanding the authority of the Secretary to make grants to air pollution control agencies for planning costs.

This section, as amended authorizes grants to air pollution control agencies in support of the costs of planning, developing, establishing, or improving programs for the prevention and control of air pollution and programs for the implementation of the air quality standards authorized under the act. Grants may also be made for the maintenance of such programs. Grants are authorized to be made under such terms and conditions as the Secretary finds necessary, in amounts up to two-thirds of the eligible program costs, except that in the case of program maintenance the amounts may only be up to one-half of the eligible program costs.

Air pollution control agencies which fall within the meaning of sections 302(b)(2) and 302(b)(4) are to be eligible for grants in larger

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proportions; namely, up to three-fourths of the costs of planning, developing, establishing, or improving, or up to three-fifths of the costs of maintaining, regional air quality control programs. In regard to these agencies, the Secretary shall first receive assur-

ance that they provide for adequate representation of appropriate State, interstate, local, and, when appropriate, international interests in the region, and that they are capable of developing air quality control plan for the region, including recommended alert systems, when appropriate. Agencies eligible for regional program grants are defined in sections 302(b)(2) and 302(b)(4), which have been retained from existing law. The committee is aware of the present interpretation of these terms by the Department of Health, Education, and Welfare and believes that the purpose of the new legislation would be served by retaining this interpretation; in particular, the committee believes that county agencies with jurisdiction in more than one incorporated municipality can be construed as air pollution control agencies within the meaning of section 302(b)(4).

The objective of the grant program is to provide impetus to the establishment and improvement of air pollution prevention and control programs in the States and local communities but not to provide a substitute for State and local funds.

By "financial need" of an agency, the committee intends that more than mere budgetary limitations of the agency be considered. The capability of the community or communities supporting the agency, taking into account such factors as financial resources, bonding limitations, per capita income, market values of property, and other relevant factors, should guide the Secretary's decisions. For example, if two communities, each having an air pollution control agency, possess approximately the same tax resources, per capita income, and market valuation of properties within their corporate limits, and have the same bonding limitations, preference would be indicated in the case of the agency supported by a community which has bonded itself to the maximum, as against the agency supported by a community which has not done so.

The funds authorized to be appropriated for this purpose together with the formula and matching provisions of the bill, should operate, in the committee's opinion, to encourage local effort in financing new or expanded programs, or the improvement of existing programs. The committee would expect the regulations of the Department with respect to the grant program to be designed to carry out this objective.

The committee believes that the primary responsibility for the prevention and control of air pollution should remain with the State and local governments and accordingly is convinced that the stimulation provided by the grant program will help to expand the

local programs. The committee urges that the funds allocated be utilized to expand and initiate local research and control programs.

Under the provisions of the bill, the Secretary would be authorized to make grants directly to local air pollution control agencies without prior State approval. The committee would expect, however, that in the administration of this program, the Department will take precautions to insure that a grant will be made only after appropriate consideration has been given to the views of the State air pollution control authority (where such a State authority exists) with respect to the particular program for which a grant is sought. This procedure

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would assure, to a greater degree, that the objective of a planned and coordinated statewide program would be achieved most efficiently, and economically.

Sec. 105. Interstate air quality agencies or commissions

Under subsection (a) of this new section the Secretary is authorized to make grants, for 2 years, to defray up to 100 percent of the planning costs of any interstate agency, and thereafter grants to defray up to three-fourths of such costs. The agency must be designated by the Governors of the affected States for the purpose of expediting the establishment of air quality standards for interstate air quality control regions designated pursuant to new section 106(a)(2).

Under subsection (b) of this new section the Secretary has the authority, after consultation with the affected States, to designate or establish an air quality planning commission for the purpose of developing recommended regulations for an interstate air quality control region whenever he deems it necessary to expedite the establishment of standards. In this case the Secretary designates the Chairman, provides the staff, and pays the associated expenses.

Sec. 106. Air quality control regions, criteria, and control techniques

This new section requires the Secretary to issue to Governors the information required for the establishment of air quality standards and a plan for their implementation. The issuance of such information is precedent to the adoption of State standards under new section 107.

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Subsection (a) requires the Secretary to define atmospheric areas of the Nation, within 1 year from the date of enactment of this act, considering those factors which affect atmospheric interchange and diffusion of pollutants. In the establishment of such atmospheric areas factors such as climate, meteorology, and topography are to be considered.

The Secretary is further required, within 18 months of the date of enactment of this act, to define those air quality control regions he deems necessary for the establishment of air quality standards to protect public health and welfare. Such air quality control areas shall be defined on the basis of jurisdictional boundaries, urban-industrial concentrations, and other factors including atmospheric areas necessary to provide adequate implementation of air quality standards, and after consultation with appropriate State and local authorities.

Subsection (b) authorizes the Secretary, after consultation with appropriate advisory committees and Federal departments and agencies, to compile and issue for informational purposes criteria relating to air pollutants which may be harmful to public health or welfare. Criteria issued shall reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on health and welfare of an air pollution agent, or combination of agents in the ambient air. At the same time the criteria must include those factors which may result in a synergistic effect on public health and welfare as a result of any air pollution agent or combination of agents. Criteria issued pursuant to this subsection will be the basis for air quality standards established pursuant to new section 107. Criteria issued prior to these amendments are to be reevaluated, and if necessary modified and reissued.

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Under subsection (c) the Secretary is required to issue information on those recommended pollution control techniques to the States and appropriate air pollution control agencies. Before issuance of such information the Secretary is directed to consult with appropriate advisory committees and Federal departments and agencies. The information issued is to include the latest technical data on the technological and economic feasibility of alternative methods of emission control including cost effectiveness analyses.

Subsection (d) provides for the revision of the ambient air quality criteria and emission control requirements issued pursuant to this section.

Sec. 107. Air quality standards and abatement of air pollution.

This section amends section 105 of the existing act by adding a new subsection (c) providing for the establishment by the States of ambient air quality standards and a plan for their enforcement and implementation.

Paragraph (1) requires the Governor of a State to file a letter of intent, adopt air quality standards, and adopt a plan for their implementation and enforcement, all within 15 months.

Approval by the Secretary of the State standards and plan is to be contingent upon whether (1) the State standards are consistent with the air quality criteria and the recommended control techniques issued by him under section 107; (2) the State plan is consistent with the purposes of the act and assures achieving the air quality standards within a reasonable time; and (3) a means of enforcement by State action is provided, including imminent danger authority comparable to new subsection (k).

Paragraph (2) provides the Secretary with authority to set standards where a State fails to establish standards and the Secretary finds it necessary to carry out the purpose of the act. The Secretary is authorized to prepare regulations setting forth air quality standards for a control region, after reasonable notice and a conference of agencies and industries involved. The standards must be consistent with the air quality criteria and recommended control techniques issued pursuant to section 106. The State has 6 months from the date the Secretary publishes such regulations to adopt standards (satisfactory to the Secretary) or to file a petition for public hearing under paragraph (3). If neither is done, the Secretary is required to promulgate such standards.

Paragraph (3) provides that within 30 days after the Secretary has promulgated standards under paragraph (2), or at any earlier time, the Governor of any State affected by the standards may petition the Secretary for a hearing. The standards hearing board and procedure is similar to the abatement hearing board and procedure provided under existing law, including a requirement of 30 days' notice. The board is given 90 days, unless the Secretary determines that a longer period is required, to make its findings. The standards approved by the hearing board if unchanged take effect upon receipt by the Secretary, or if modified by the hearing board upon promulgation by the Secretary of revised regulations.

The committee has deleted a specific requirement in S. 780 as passed by the Senate that the Department of Commerce be repre-

sented on any hearing board established under this paragraph since no other

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Federal agency is specifically mentioned. The committee, however, does not intent this change to be construed as an expression of intent to the contrary. The Department of Commerce will have many responsibilities in providing technical and economic advice under this Act. Also, the participation of the Department of Commerce in the ultimate establishment of air quality standards could provide a basis for achieving the objective of air pollution abatement, with the minimum economic disruption to the various industries affected.

Paragraph (4) authorizes the Secretary, whenever he finds that (A) the ambient air quality of all or a part of a control region is below the standards established and (B) such lowered air quality is due to the failure of a State to take reasonable action to enforce such standards, to notify the affected State or States and interested parties including persons contributing to the alleged violation, of the violation. If, within 180 days of the Secretary's notification the failure does not cease, he may proceed under authority similar to that of subsection (f) of the existing act.

Paragraph (5) provides for the protection of trade secrets.

A proposed paragraph (6) was deleted as unnecessary.

No change was made in subsection (c)(1) of the existing act other than its redesignation as subsection (d)(1).

Subsection (c)(2) of the act is redesignated subsection (d)(2). It is revised to require the Secretary to deliver to agencies and make available to interested parties, at least 30 days prior to conference, a Federal report including data and conclusions or findings, if any. The provisions of existing law requiring three weeks' notice are changed to require 30 days' notice, including newspaper publication. The Chairman of the conference is required to give interested parties opportunity to present views to the conference with respect to Federal report. The Secretary is to provide that a transcript of the proceedings be made available to any participant.

Subsection (c)(3) of the act is redesignated subsection (d)(3), and subsection (d) through (i) of the act are redesignated subsections (e) through (j), and appropriate cross-references changed accordingly. The subsection to be designated (f)(1) is amended to add a provision assuring all interested parties an opportunity to present evidence to the hearing board.

A new subsection (k) authorizes the Secretary, upon receipt of evidence of imminent and substantial endangerment to health, and finding State or local authorities have not acted, to request Attorney General to seek injunctions to stop emission of contaminants or to take such other action as may be necessary.

Sec. 108. Standards to achieve higher level of air quality

The new section assures that States, localities, inter-municipal, or interstate agencies may adopt standards and plans to achieve a higher level of ambient air quality than approved by the Secretary.

Sec. 109. President's Air Quality Advisory Board and advisory committees

This section replaces section 106 of the present act titled "Automotive Vehicle and Fuel Pollution." Provisions of that section which provide for the Secretary to encourage development of devices and fuels to control automotive air pollution and required semiannual

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report to Congress are incorperated within new sections 103 and 306, respectively.

The new section 109 establishes the President's Air Quality Advisory Board in HEW, composed of the Secretary or his designee and 15 members appointed by the President, from State, interstate, and local agencies, of public or private interests contributing to, affected by, or concerned with air pollution, and others. No appointee may be a Federal officer or employee. The Board is to advise and consult with the Secretary on policy under the act and make recommendations to the President.

This new section also authorizes the Secretary to establish advisory committees from time to time to help develop criteria; recommend control techniques, standards, research, and development; and to encourage efforts on the part of industry.

Sec. 110. Cooperation by Federal agencies to control air pollution from Federal facilities

No changes were made in this section which is section 107 of the existing act.

TITLE II—SHORT TITLE

Section 201

The title was redesignated the "National Emission Standards

Act" to reflect the incorporation in this title of all sections of the act and bill concerned with national emission standards.

Sec. 202. Establishment of standards

No change in this section of the act.

Sec. 203. Prohibited acts

No change in this section of the act.

Sec. 204. Injunction procedure

No change in this section of the act.

Sec. 205. Penalties

No change in this section of the act.

Sec. 206. Certification

No change in this section of the act.

Sec. 207. Records and reports

No change in this section of the act.

Sec. 208. State standards

This new section provides explicit Federal preemption of the power to set standards on emissions from new motor vehicles and engines. It further provides that the Secretary may set other standards, either more stringent or applicable to emissions not covered by the national standards under section 202, after notice and an opportunity for a public hearing for a State which shall have adopted standards (other than crankcase emission standards) prior to March 30, 1966. The Secretary can set more stringent or other standards if he finds that such State requires such standards to meet compelling and extraordinary conditions.

It is further provided that any State or political subdivision has the right otherwise to control, regulate, or restrict the use, operation, or movement of registered or licensed motor vehicles.

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Sec. 209. Federal assistance in developing inspection programs

This new section provides assistance to State inspection programs by authorizing grants to State air pollution control agencies for two-thirds of the cost of developing uniform motor vehicle emission device inspection and emission testing programs. The

Secretary of Transportation must certify that the program is consistent with any highway safety program established pursuant to the Highway Safety Act.

Sec. 210. Registration of fuel additives

Prohibits any manufacturer or processor, after a date or dates prescribed by regulation, from introducing into interstate commerce any fuel designated in regulations for any use whatsoever which contains any additive, unless such additive is registered with the Secretary. The Secretary would register an additive upon filing of an application containing such information as to the characteristics and composition of the additive as the Secretary finds necessary and including assurances that such additional information as the Secretary may reasonably require will be provided upon request. The Secretary shall make provision to protect trade secrets and national security interests with respect to any additive, or any class or use thereof. A civil penalty of $1,000 per day is provided for violations of this section.

Sec. 211. National emissions standards study

This new section requires the Secretary to submit to Congress within 2 years a comprehensive report on the need for and the effect of national emission standards for stationary sources. It also requires that the Secretary investigate the feasibility and practicability of controlling emissions from jet and piston-driven aircraft engines and of establishing national emission standards with respect thereto and report to the Congress within 1 year of the date of enactment of this act.

Sec. 212. Definitions

No changes in this section of the act other than to designate the sections of this title to which the definition of manufacture is restricted.

TITLE III

Section 301. Administration

No change in this section of the act.

Sec. 302. Definitions

No change in this section of the act.

Sec. 303. Other authority not affected

No change in this section of the act.

Sec. 304. Records and audit

No change in this section of the act.

Sec. 305. Comprehensive economic cost studies

New section which requires the Secretary to submit a report to Congress by January 10, 1969, and annually thereafter.

Provisions include—

(1) A detailed estimate of cost of carrying out this act;

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(2) A comprehensive study of cost of program implementation by affected units of government (each of above for 5 fiscal years beginning July 1, 1969): and

(3) A comprehensive study of economic impact of air quality standards on the Nation's industries, communities, and other pollution sources, including an analysis of national requirements for and cost of controlling emissions to the standards established under the act.

The Secretary is also required to make complete investigation of need for additional trained personnel, and report by July 1, 1969.

Sec. 306. Additional reports to Congress

New section which requires annual reports to Congress on progress in 10 specific fields authorized by the act.

Sec. 307. Labor standards

The Secretary shall do whatever is necessary to insure that all laborers and mechanics employed by contractors or subcontractors on projects assisted under this act shall be paid wages at rates not less than those prevailing for the same type of work on similar construction in the locality, determined by the Secretary of Labor, as provided by the Davis-Bacon Act.

Sec. 308. Separability

No change in this section of the act.

Sec. 309. Appropriations

This section authorizes $99 million for fiscal year 1968, $145 million for fiscal year 1969, and $184,300,000 for fiscal year 1970.

Sec. 310. Short title

No change in this section of the act.

AGENCY REPORTS

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
Washington, D.C., May 12, 1967.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request of May 3, 1967, for a report on H.R. 9509, a bill "To amend the Clean Air Act to improve and expand the authority to conduct or assist research relating to air pollutants, to assist in the establishment of regional air quality commissions, to authorize establishment of standards applicable to emissions from establishments engaged in certain types of industry, to assist in establishment and maintenance of State programs for annual inspections of automobile emission control devices, and for other purposes."

On January 31, 1967, you introduced H.R. 4279, which was the same as the draft bill we submitted to the Congress to carry out the recommendations with respect to improving the quality of our air contained in the President's Message to the Congress on Protecting Our National Heritage. Subsequently, on April 27, we submitted to the Congress a request that this bill be amended to increase from $84,000,000 to $99,000,000 the authorization of appropriations for the fiscal year

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ending June 30, 1968 to carry out the existing and proposed legislation. The additional funds would be made available for research and development in the control of sulfur emissions from fuels.

As you explained in introducing H.R. 9509, it is the same as H. R. 4279 except for this additional amendment to carry out our recommendation. We, therefore, urge that favorable consideration be given to H.R. 9509.

We are advised by the Bureau of the Budget that enactment of H.R. 9509 would be in accord with the program of the President.

Sincerely,

WILBUR J. COHEN,
Under Secretary

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,

Washington, D.C., August 14, 1967.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This letter is in response to your request of July 20, 1967, for a report on S. 780, a bill "To amend the Clean Air Act to authorize planning grants to air pollution control agencies; expand research provisions relating to fuels and vehicles; provide for interstate air pollution control agencies or commissions; authorize the establishment of air quality standards, and for other purposes."

This bill, which was passed by the Senate on July 18, 1967, and H.R. 9509, which you introduced at the request of this Department, will be the subject of hearings before your Committee, beginning August 9, 1967. Officials of this Department will be testifying at these hearings.

We are pleased that the Committee has scheduled its hearings so promptly after completion of action on this legislation by the Senate. In our testimony at the hearings, we intend to make a full presentation of our views on both bills; subsequently, if you deem it necessary or desirable, we will be pleased to submit a formal report.

Sincerely,

WILBUR J. COHEN,
Under Secretary

EXECUTIVE OFFICE OF THE PRESIDENT,

BUREAU OF THE BUDGET,
Washington, D.C., August 16, 1967.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of the Bureau of the Budget on H.R. 4279 and S. 780, bills to amend the Clean Air Act. H.R. 4279, which the President has recommended, would provide for national emission standards to control pollution from major industries throughout the country, and for Regional Commissions to establish and enforce air pollu-

tion standards on a regional basis. The Senate-passed bill contains a number of the provisions of the Administration's bill. However, it substitutes for

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the national emission standards and the Regional Commissions a process by which the States would initially have the opportunity to establish air quality standards, subject to the approval of the Secretary of Health, Education, and Welfare.

We strongly urge enactment of legislation to strengthen this Nation's attack on air pollution. We would prefer the enactment of H.R. 4279, but we recognize that the Senate-passed bill would provide for substantial improvements in air pollution control.

If S. 780 is favorably considered by your Committee, we endorse the amendments recommended by the Department of Defense in its report. We believe that a provision similar to that contained in H.R. 4279 is needed for the protection of the national security in extraordinary circumstances.

Sincerely yours,

WILFRED H. ROMMEL,
Assistant Director for Legislative Reference

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., August 9, 1967.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. STAGGERS: Your Committee has requested this Department's views on H.R. 9509, a bill "To amend the Clean Air Act to improve and expand the authority to conduct or assist research relating to air pollutants, to assist in the establishment of regional air quality commissions, to authorize establishment of standards applicable to emissions from establishments engaged in certain types of industry, to assist in establishment and maintenance of State programs for annual inspections of automobile emission control devices, and for other purposes," and a similar bill H.R. 4279.

H.R. 9509 is identical to the Administration's bill on this subject. H.R. 4279 differs from H.R. 9509 only in the sum authorized

to be appropriated for fiscal year 1968 and the 4 succeeding years. The sum in H.R. 9509 is higher.

Your Committee has also requested this Department's views on S. 780, a bill "To amend the Clean Air Act to authorize planning grants to air pollution control agencies; expand research provisions relating to fuels and vehicles; provide for interstate air pollution control agencies or commissions; authorize the establishment of air quality standards, and for other purposes," which passed the Senate on July 18, 1967. S. 780 substantially amends the Clean Air Act. The bill includes many of the recommendations of the Administration.

The provisions of these bills are of interest to this Department, particularly as they relate to the work we have done through research and other activities in the area of fuels. They are, however, of more direct concern to the Department of Health, Education, and Welfare. We therefore defer to that Department on these bills.

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The Bureau of the Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,

J. CORDELL MOORE,
Assistant Secretary of the Interior

DEPARTMENT OF AGRICULTURE,
Washington, D.C., August 24, 1967.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives.

DEAR MR. CHAIRMAN: This is in reply to your letter of May 3, 1967, requesting a report on H.R. 9509, a bill "To amend the Clean Air Act to improve and expand the authority to conduct or assist research relating to air pollution, to assist in the establishment of regional air quality commissions, to authorize establishment of standards applicable to emissions from establishments engaged in certain types of industry, to assist in establishment and maintenance of State programs for annual inspections of automobile emission control devices, and for other purposes." This also replies to your requests for reports on H.R. 10, H.R. 698, H.R. 3126, and H.R. 4279.

H.R. 9509 would provide among other things, for the conduct and acceleration of research especially relating to fuels, and Federal payments for costs of devices, methods, or other means to prevent or control discharge into the air of various types of pollutants. Fuel additives would be required to be registered with the Secretary of Health, Education, and Welfare with provision for civil penalties for violations. Vehicle pollution control devices on model years after 1967 would be inspected on a regular basis and assistance provided in the administration of State inspection programs.

Emission control standards would be established for those industries which contribute heavily to air pollution. The bill would provide procedures for enforcement of emission standards including civil penalties. Also, provision would be made for acceptance of emission standards developed by the States which are substantially equivalent to or more stringent than Federal standards. Regional air quality commissions would be established in cooperation with the States to deal with pollution problems which cut across State and local boundaries with enforcement provisions including civil penalties.

Air pollution, especially from effluents containing fluorine, sulfur, and other compounds and combustion products, has been demonstrated to cause extensive damage to crops, livestock, and forests upon which this country depends for food, fiber, shelter, and other materials. This Department favors the enactment of H.R. 9509.

In this connection the Department of Agriculture has authority, and will continue, to undertake research and related services in connection with air pollution affecting agriculture.

The Bureau of the Budget advises that there is no objection to the presentation of this report and that the enactment of this proposed legislation would be in accord with the President's program.

Sincerely yours,

ORVILLE L. FREEMAN, *Secretary*

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OFFICE OF THE SECRETARY OF TRANSPORTATION,
Washington, D.C., August 15, 1967.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of this Department on H.R. 698, H.R. 3126, H.R. 4279, and H.R. 9509, bills which would variously amend the Clean Air Act to provide for more effective prevention, control and abatement of air pollution.

The Department of Transportation strongly urges the enactment of legislation to strengthen the authority to attack air pollution. Pollution from fuel combustion is a critical, nationwide problem which must be dealt with promptly and effectively.

The bulk of the air pollution control and abatement authority proposed in these bills would be vested in the Secretary of Health, Education, and Welfare. The Department of Transportation will have a supporting role in carrying out some of the programs contemplated. We favor the enactment of H.R. 9509; however, we would not oppose enactment of S. 780.

The Bureau of the Budget advises that there is no objection to the submission of this report and that enactment of H.R. 9509 would be in accord with the President's program.

Sincerely,

JOHN L. SWEENEY,
Assistant Secretary for Public Affairs

GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE,
Washington, D.C., August 14, 1967.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: Reference is made to S. 780, the proposed "Air Quality Act of 1967" as passed by the Senate and now pending before your Committee. Although the Department of Defense prefers the language of H.R. 9509, which is identical to S. 780 as introduced, this opportunity is taken to present its views in connection with certain provisions of S. 780 as passed by the Senate.

As introduced S. 780 (proposed Secs. 107(a) and 108(e)) pro-

vided authority for exemptions from otherwise contemplated air quality standards and emission standards upon a finding, by the Secretary of Health, Education and Welfare, that exemption is necessary "to protect the public health or welfare, for the purpose of research, investigations, studies, demonstrations, or training, *or for reasons of national security*" (emphasis added). Similarly, in connection with registration of fuel additives (proposed section 103(f)(3)), S. 780 would have authorized the Secretary, HEW, to protect fuel additive data submitted if in his judgment such protection is needed in the interest of trade secrets or national security. In its present form, no such exemption or authority is retained in the bill, as concerns national security.

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Consistent with the position of the Administration as reflected in the introduced bill, it is recommended that the substance of the deleted provisions bearing on national security considerations be reinstated in S. 780, as suggested below. In connection with standards to be established by the Secretary of Health, Education, and Welfare.

a. Add, as a new subparagraph 108(c) (7), text to the following effect:

"The Secretary may exempt any industry or establishment or class thereof from the standards established under paragraphs 2 and 3 of this subsection, upon such terms and conditions as he finds necessary, for the protection of the public health and welfare or for reasons of national security."

This provision is considered necessary in order to avoid situations wherein the national security clearly requires continuance of operations which may for short periods of time not conform to the air quality criteria. For example, operation of a stand-by munitions manufacturing plant may have to be resumed in a time of crisis or national emergency in such a mode as to produce emissions above those established under this section, but below an immediate health hazard concentration.

b. Introduce the following text as a new subparagraph 210(d), and reletter the present subparagraphs 210(d) and (e) as subparagraphs 210(e) and (f) respectively:

"The Secretary shall make provision, with respect to any additive, or any class or use thereof, or any information furnished in connection therewith, as in his judgment is necessary in the interest of national security."

This provision is essential to prevent disclosure of information

regarding current and projected military capabilities in aircraft fuels, rocket and missile propellants, and other specialized military propulsion systems. In absence of a clear basis for exception from the otherwise mandatory disclosure provisions of proposed section 210, much of the information required could provide direct data on miltary capabilities. As introduced, the protection of national security data would, of course, have been coextensive with the coverage of the fuel additive provision which, it is understood, was intended to deal only with motor vehicle fuels. In light of the expanded coverage as now contemplated, to include fuels used for other than motor vehicles, the need for such national security safeguard becomes even more significant.

The Bureau of the Budget advises that, from the standpoint of the Administration's program, there is no objection to the presentation of this report for the consideration of the Committee.

Sincerely yours,

L. NIEDERLEHNER,
Acting General Counsel

GENERAL SERVICES ADMINISTRATION,
Washington, D.C., August 23, 1967.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: Your letter of March 13, 1967, requested the comments of the General Services Administration on H.R. 4279

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(superseded by H.R. 9509), 90th Congress, a bill "To amend the Clean Air Act to improve and expand the authority to conduct or assist research relating to air pollutants, to assist in the establishment of regional air quality commissions, to authorize establishment of standards applicable to emissions from establishments engaged in certain types of industry, to assist in establishment and maintenance of State program for annual inspections of automobile emission control devices and for other purposes."

Section 2(a) of the bill would amend section 103(a) of the Clean Air Act, as amended (42 U.S.C. 1857b(a)) to provide, among other things, that the Secretary of Health, Education, and Welfare shall conduct and accelerate research programs for the

development of improved low-cost techniques for control of combustion byproducts of fuels. Section 4 of the bill would amend the Clean Air Act by adding a new section 208 to provide, in part, that the Secretary of Transportation is authorized to impose procedures to assure the adequacy of performance of vehicle emission control systems or devices.

The President in his message to the Congress of February 8, 1865, on the subject of "Natural Beauty" stated, among other things, that the Administrator of General Services had already taken steps to assure that motor vehicles purchased by the Federal Government meet minimum standards of exhaust quality. The President was referring to our publication, in proposed form, of Federal Standard No. 515/14 in the Federal Register on January 30, 1965 (30 F.R. 801).

This standard, which had been developed with the full collaboration of industry and Government agencies concerned, placed limitations on vehicle exhaust emissions. It was issued pursuant to Public Law 88–515, approved August 30, 1964 (78 Stat. 696), and section 205(c) of the Federal Property and Administrative Services Act of 1949. On June 30, 1965, the standard was published in final form, with September 28, 1966, as its effective date (30 F.R. 8326, 8327). Federal Standard No. 515/14 has been amended to conform to regulations established by the Department of Health, Education, and Welfare. The amendment will become effective on October 13, 1967 (31 F.R. 5170, 9635, 9638).

In addition, pursuant to section 206(a)(4) of the Property Act, we have issued specifications as early as 1963 requiring that the engines of motor vehicles purchased by Federal agencies be provided with positive crankcase ventilation systems. This requirement is now included in Federal Standard 515/14a. These systems route most crankcase emissions back into the combustion chambers of the engines, and thereby substantially reduce the pollutants released by the crankcase. Beginning with the 1968 models, control of crankcase emission, along with exhaust emission control, will be governed by regulations issued by HEW (31 F.R. 5170).

We believe that GSA's program is consistent with the objectives of sections 2(a) and 4 of H.R. 4279 (H.R. 9509).

Since the remainder of the bill, if enacted, would have little, if any, effect on GSA's functions or responsibilities, we have no appropriate basis for comment thereon.

The Bureau of the Budget has advised that there is no objection to the submission of this report to your Committee and that enact-

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ment of H.R. 9509 would be in accord with the President's program.

Sincerely yours,

LAWSON B. KNOTT, JR.,
Administrator

GENERAL SERVICES ADMINISTRATION,
Washington, D.C., August 23, 1967.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: Your letter of July 20, 1967, requested the comments of the General Services Administration on S. 780, 90th Congress, a bill "To amend the Clean Air Act to authorize planning grants to air pollution control agencies; expand research provisions relating to fuels and vehicles; provide for interstate air pollution control agencies or commissions; authorize the establishment of air quality standards, and for other purposes."

The proposed section 104(a) of the Clean Air Act would provide among other things, that the Secretary of Health, Education, and Welfare shall conduct and accelerate research programs for the development of improved low-cost techniques for control of combustion by-products of fuels. The proposed section 208 would provide Federal preemption of the right to adopt or attempt to enforce standards relating to the control of emissions from new motor vehicles or new motor vehicle engines with the sole waiver of application of preemption to the State of California. With this one exception, the standards prescribed by the Secretary under section 202(a) of the Clean Air Act and accompanying enforcement procedures for the control of air pollution from motor vehicles would apply uniformly throughout the United States.

The President in his message to the Congress of February 6, 1965, on the subject of "Natural Beauty" stated, among other things, that the Administrator of General Services had already taken steps to assure that motor vehicles purchased by the Federal Government meet minimum standards of exhaust quality. The President was referring to our publication, in proposed form, of Federal Standard No. 515/14 in the Federal Register on January 30, 1965 (30 F.R. 801).

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sions back into the combustion chambers of the engines, and thereby substantially reduced the pollutants released by the crankcase. Beginning with the 1968 models, control of crankcase emissions, along with exhaust emission control, will be governed by regulations issued by HEW (31 F.R. 5170).

We believe that GSA's program is consistent with the objectives of sections 104(a) and 208 of S. 780, and we have no objection to the enactment of these provisions.

Since the remainder of the bill, if enacted, would have little, if any, affect on GSA's functions or responsibilities, we have no appropriate basis for comment thereon.

The Bureau of the Budget has advised that, from the standpoint of the Administration's program, there is no objection to the submission of this report to your Committee.

Sincerely yours,

LAWSON B. KNOTT, JR.,
Administrator

ADVISORY COMMISSION ON
INTERGOVERNMENTAL RELATIONS,
Washington, D.C., July 31, 1967.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request of July 20 for the views of the Advisory Commission on Intergovernmental Relations regarding S. 780, an Act "To amend the Clean Air Act to authorize planning grants to air pollution control agencies; expand research provisions relating to fuels and vehicles; provide for interstate air pollution control agencies or commissions; authorize the establishment of air quality standards, and for other purposes." The Commission has not studied the provisions of this legislation, nor has it studied the specific intergovernmental problems of air pollution control embodied in the legislation. The following comments, therefore, unless otherwise noted, are those of the Commission staff.

Section 105 authorizes the Secretary of HEW to make grants for support of air pollution planning and control programs. Subsection (b) provides that in establishing regulations for granting such funds the Secretary shall, so far as practicable, "give due consideration to (1) the population, (2) the extent of the actual or potential air pollution problem, and (3) the financial need of the respective agencies." Except for the fact that subsection (c) limits the allocation of funds to any one State to 12½ percent of the total, funds are to be allocated on a "project" rather than a "formula" basis.

Since an effective formula approach depends on the availability of adequate measures of program need, and since such measures are currently lacking because of the rudimentary state of the science of air pollution prevention and control, the project approach seems necessary at this time. It would seem, however, that in not too many years, HEW will have developed reasonably good measures of need. This Act's authorization of grants for support of operating programs should encourage widespread pollution control activity. Also, Section 107 of the Act requires the Secretary of HEW to develop criteria of air

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quality, and Section 108 requires him to establish standards consistent with those criteria and if necessary prepare regulations

setting forth standards of air quality applicable to air quality control regions or portions thereof. Thus, the Act itself should generate the development of indices and techniques for measuring air pollution which produce the type of data needed to enable allocation of grant funds for conducting air pollution control programs on a formula rather than project basis.

From its examination of the administration of the categorical grant system, the Commission staff is convinced that a formula grant, based on adequate measures of program need, provides a greater degree of Congressional assurance that the grant funds authorized will be applied to the places of need as prescribed in the legislation. The project system, by contrast, places great reliance on administrative discretion and favors those State and local applicants that have highly-developed capacity for preparing and submitting applications, regardless of their relative need for the grant funds. The Commission's staff would therefore urge your Committee, in its continuing review of the operation of the Clean Air Act to take special note of progress in developing air pollution control techniques and measures of need, with a view to possible future amendment of Section 105(b) of the Act to provide for distributing grants for operating purposes on a formula basis.

Section 302(b)(1) defines a State air pollution control agency to mean "(a) single State agency designated by the Governor of that State as the official State air pollution control agency for purposes of this Act." The Advisory Commission on Intergovernmental Relations has taken the position that "single State agency" requirements unnecessarily limit the organizational powers and flexibility of State government and may lead to weak administration of Federal programs. We would suggest adding the following language after the word "Act":

"Provided, that the Secretary may, upon request of the Governor or other appropriate executive or legislative authority of the State responsible for determining or revising the organizational structure of State government, waive the single State agency provision hereof and approve another State administrative structure or arrangement if the Secretary determines that the objectives of this Act will not be endangered by the use of such other State structure or arrangement."

Finally, we would suggest amending the definition of "regional air pollution control agency or planning commission" in Section 302(c) to read as follows:

"The term 'regional air pollution control agency or planning commission' means an agency *with jurisdiction over the area* of

two or more municipalities located in the same State or in different States and having the capability of carrying out the planning functions authorized by this Act."

The change makes it clear that the regional agency need not be an agency established by two or more municipalities. It might, for example, be a State agency with its governing body appointed by the Governor. The crucial point is that its coverage extends to more than a single municipality. This clarification is consistent, moreover, with

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the definition of "regional air quality control program" contained in the last sentence of Section 105(a)(1).

Thank you for the opportunity to review and comment on S. 780.

Sincerely yours,

WM. G. COLEMAN,
Executive Director

GENERAL COUNSEL OF THE DEPARTMENT OF COMMERCE,
Washington, D.C., August 28, 1967.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in further reply to your request for the views of this Department concerning S. 780, an Act

"To amend the Clean Air Act to authorize planning grants to air pollution control agencies; expand research provisions relating to fuels and vehicles; provide for interstate air pollution control agencies or commissions; authorize the establishment of air quality standards, and for other purposes."

to be cited as the "Air Quality Act of 1967."

Title I of S. 780 defines the basic purposes of the Act and the role of the Federal Government in air pollution control. In this respect the Secretary of Health, Education and Welfare, who is charged with administering the Act, is directed to defer to State and regional standards and control programs unless they are deficient, in which case he is authorized to implement such Federal control as the Act permits. With respect to prevention and control of air pollution, the Secretary is directed to encourage activities by the various State and local governments, to establish

a national research and development program, to establish air-quality criteria and, as necessary, to designate air quality control regions. The Secretary is authorized to make grants to air pollution control agencies and planning commissions. Also, Title I establishes in the Department of HEW the President's Air Quality Advisory Board, composed of the Secretary and fifteen non-Federal members appointed by the President, who shall advise and consult with the Secretary on matters regarding this Act and make recommendations to the President as necessary.

Title II deals with the establishment of standards for emission of pollutants, and it sets forth enforcement procedures and penalties for violation. It directs the Secretary to prescribe emission standards for new motor vehicles and to submit to Congress within two years a comprehensive report on the need for and the effect of national emission standards for stationary sources. The Secretary is authorized to require manufacturers to reveal the composition of fuels, and in the case of motor vehicles, he is authorized to make grants to State air pollution control agencies for developing uniform emission device inspection and emission testing programs.

Title III authorizes the Secretary to prescribe such regulations as are necessary to carry out his functions under this Act, and to detail personnel of the Public Health Service to air pollution control agencies. It also requires the Secretary, in cooperation with State, interstate and local air pollution control agencies to make comprehensive economic cost studies in order to provide a basis for evaluating programs authorized by this Act.

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S. 780 is designed to implement certain of the recommendations for an accelerated attack on the contamination of our air contained in the President's message of January 30, 1967 to the Congress on Air Pollution.

This Department recommends the enactment of legislation for this purpose. While we would prefer the enactment of H.R. 9509, as recommended by the President, we believe that S. 780 would provide much of the additional authority needed for control of air pollution in this country. We would not therefore object to enactment of S. 780.

The added responsibilities which this Department will incur under this Act, both those implied throughout the Act and those specifically alluded to in Senate Report No. 403, will result in increased responsibilities for this Department and will require the

expenditure of additional funds, the extent of which is not known at this time.

We have been advised by the Bureau of the Budget that there would be no objection to the submission of this report and further that enactment of H.R. 9509 would be in accord with the program of the President.

Sincerely,

JAMES L. PARRIS,
General Counsel

DEPARTMENT OF STATE,
Washington, D.C., September 12, 1967.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: Although the Department of State has not been asked to comment on S. 780, we would like to place before the Committee on Interstate and Foreign Commerce certain trade considerations with respect to section 208(b) of the bill, as reported by the Senate Committee on Public Works and passed by the Senate. This letter is prompted by expressions of concern which we have received from foreign embassies and from representatives of American importers.

The Department was pleased to see included in paragraph (a) of section 208 a clear statement of the principle of Federal preemption of the right to set standards on emissions from new motor vehicles or new motor vehicle engines. This principle had heretofore not been explicit in the Motor Vehicle Air Pollution Control Act. Its omission had occasioned concern among foreign embassies here.

Paragraph (b) of section 208, however, gives the Secretary of Health, Education, and Welfare authority, after public hearing and upon satisfaction of certain conditions, to waive application of paragraph (a) to a State which has adopted automobile air pollution control standards, other than crankcase emission standards, prior to March 30, 1966. We note that California is the only State that might now qualify for such a waiver. We are, nevertheless, concerned that this exemption may serve as a precedent for waiver of the principle of Federal preemption with respect to additional States. The report to accompany S. 780, Committee on

Public Works, U.S. Senate (Report No. 403, July 15, 1967), indicates that the Senate Committee has not ruled out the possibility that the Congress might expand the waiver,

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now proposed only for California, to include other States if circumstances should so suggest. We are also troubled that the waiver may serve as a precedent for sanctioning other State laws and regulations affecting an unlimited range of products that move in foreign commerce. To permit individual States to establish regulations affecting foreign commerce can cause grave trade complications.

Recognition of two or more sets of emission standards would entail diseconomies of scale and efficiency for both domestic and foreign automobile manufacturers, but the burden would fall with disproportionate severity upon imported car manufacturers. About 8 million domestically made cars were sold here last year. About 700,000 foreign cars were sold. The market for the domestic product will remain substantial in California and in other standards areas. Foreign manufacturers will have fewer sales than domestic manufacturers in any special standards area over which to spread the costs of compliance. Some foreign producers might thereby be excluded from the American market or from some sections of it. While many justify the plight of foreign suppliers by observing that American producers would be laboring under the same handicap, we must in all fairness consider whether or not, in acceeding to the regionalization of standards, we might be giving domestic manufacturers relief from foreign competition, and exercising de facto, if not technical, discrimination against the comparable imported product. In this case we could expect foreign governments and foreign suppliers to accuse us of violating the spirit of many bilateral treaties of friendship, commerce, and navigation and other international agreements in which we have undertaken to grant foreign products, once they have entered the United States, the same treatment that we give to similar domestic products with respect to all laws, regulations, and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution, or use. Frustration could prompt our trading partners to use health and safety regulations as disguised trade barriers in retaliation, to the detriment of American export capability.

The Department of State believes that, ideally, there should be uniform national standards for the control of automobile air pol-

lution. It recognizes the critical concern of California for air pollution control, which is prompted especially by the acute susceptibility of the Los Angeles basin to concentrations of smog. However, air pollution has become an increasingly pressing problem in most metropolitan areas where by 1985, 75 percent of our population will be living. New York City in 1963 experienced a surge in the death rate directly traceable to air pollution. A vast area of the east coast last Thanksgiving Day was threatened by a near-critical concentration of stagnant air. Detroit, Pittsburgh, Chicago, Baltimore, and Washington, among other cities, are bothered by smog. Different automotive pollutants may be the special concern of different areas—hydrocarbon emissions in Los Angeles, carbon monoxide in New York, nitrogen oxides in other cities. The committee therefore, may wish to provide for a uniform national standard for each type of emission that would reflect the degree of control required to protect air quality in the area most severely affected by that pollutant. National standards, then, would reflect, compositely, the most critical needs of all areas.

If, despite the trade considerations raised above, the committee believes that there are overriding reasons for retention of the Cali-

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fornia waiver provision, the Department of State would not oppose the suggestion of Thomas C. Mann, president of the Automobile Manufacturers Association, made to the House Committee on Interstate and Foreign Commerce on August 23, 1967. Remarking that the domestic automobile manufacturers would prefer uniform national standards, Mr. Mann proposed as an alternative to paragraph (b), as now drafted, that the Secretary of Health, Education, and Welfare, rather than the State of California, be given the authority to issue and administer the more stringent standards for which the committee might wish to provide.

In the view of this Department, it is essential that the bill should assert the preeminence of the Federal Government in order that (1) emission standards will be based on the best available information—which the wide resources of the Federal Government are soon likely to provide—and that (2) procedures and the interpretation of data, regulations, and laws will be uniform throughout the Nation.

The Bureau of the Budget advises that from the standpoint of

the administration's program there is no objection to the submission of this report.

Sincerely yours,

WILLIAM B. MACOMBER, JR.,
Assistant Secretary for Congressional Relations

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3 of Rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, S. 780, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italics, existing law in which no change is proposed is shown in roman):

CLEAN AIR ACT

AN ACT To improve, strengthen, and accelerate programs for the prevention and abatement of air pollution

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I—AIR POLLUTION PREVENTION AND CONTROL

FINDINGS AND PURPOSES

SECTION 101. (a) The Congress finds—

(1) that the predominant part of the Nation's population is located in its rapidly expanding metropolitan and other urban areas, which generally cross the boundary lines of local jurisdictions and often extend into two or more States;

(2) that the growth in the amount and complexity of air pollution brought about by urbanization, industrial development, and the increasing use of motor vehicles, has resulted in mounting dangers to the public health and welfare, including injury to agricultural crops and livestock, damage to and the deterioration of property, and hazards to air and ground transportation;

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(3) that the prevention and control of air pollution at its source is the primary responsibility of States and local governments; and

(4) 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.

(b) The purposes of this title are—

(1) to protect *and enhance the quality of* the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population;

(2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution;

(3) to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and

(4) to encourage and assist the development and operation of regional air pollution control programs.

COOPERATIVE ACTIVITIES AND UNIFORM LAWS

SEC. 102. (a) The Secretary shall encourage cooperative activities by the States and local governments for the prevention and control of air pollution; encourage the enactment of improved and, so far as practicable in the light of varying conditions and needs, uniform State and local laws relating to the prevention and control of air pollution; and encourage the making of agreements and compacts between States for the prevention and control of air pollution.

(b) The Secretary shall cooperate with and encourage cooperative activities by all Federal departments and agencies having functions relating to the prevention and control of air pollution, so as to assure the utilization in the Federal air pollution control program of all appropriate and available facilities and resources within the Federal Government.

[(c) The consent of the Congress is hereby given to two or more States to negotiate and enter into agreements or compacts, not in conflict with any law or treaty of the United States, for (1) cooperative effort and mutual assistance for the prevention and control of air pollution and the enforcement of their respective laws relating thereto, and (2) the establishment of such agencies, joint or otherwise, as they may deem desirable for making effective such

agreements or compacts. No such agreement or compact shall be binding or obligatory upon any State a party thereto unless and until it has been approved by Congress.]

(*c*) *It is the intent of Congress that no agreement or compact entered into between States after the date of enactment of the Air Quality Act of 1967, which relates to the control and abatement of air pollution in an air quality control region, shall provide for participation by a State which is not included (in whole or in part) in such air quality control region.*

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RESEARCH, INVESTIGATIONS, TRAINING, AND OTHER ACTIVITIES

SEC. 103. (a) The Secretary shall establish a national research and development program for the prevention and control of air pollution and as part of such program shall—

(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;

(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;

(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;

[(4) initiate and conduct a program of research directed toward the development of improved, low-cost techniques for extracting sulfur from fuels; and

[(5) conduct and accelerate research programs (A) relating to the means of controlling hydrocarbon emissions resulting from the evaporation of gasoline in carburetors and fuel tanks, and the means of controlling emissions of oxides of nitrogen and aldehydes from gasoline-powered or diesel-powered vehicles, and to carry out such research the Secretary shall consult with the technical committee established under section 106 of this Act, and for research concerning

diesel-powered vehicles he may add to such committee such representatives from the diesel-powered vehicle industry as he deems appropriate; and (B) directed toward the development of improved low-cost techniques designed to reduce emissions of oxides of sulfur produced by the combustion of sulfur-containing fuels.]

(4) conduct and accelerate research programs directed toward development of improved low-cost techniques for control of combustion byproducts of fuels, for removal of potential pollutants from fuels, and for control of emissions from evaporation of fuels;

(5) 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.

(b) In carrying out the provisions of the preceding subsection the Secretary is authorized to—

(1) collect and make available, through publications and other appropriate means, the results of and other information, including appropriate recommendations by him in connection therewith, pertaining to such research and other activities;

(2) cooperate with other Federal departments and agencies, with air pollution control agencies, with other public and private agencies, institutions, and organizations, and with any industries

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involved, in the preparation and conduct of such research and other activities;

(3) make grants to air pollution control agencies, to other public or nonprofit private agencies, institutions, and organizations, and to individuals, for purposes stated in subsection (a) (1) of this section;

(4) contract with public or private agencies, institutions, and organizations, and with individuals, without regard to sections 3648 and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5);

(5) provide training for, and make training grants to, personnel of air pollution control agencies and other persons with suitable qualifications;

(6) establish and maintain research fellowships, in the Department of Health, Education, and Welfare and at public

or non-profit private educational institutions or research organizations;

(7) collect and disseminate, in cooperation with other Federal departments and agencies, and with other public or private agencies, institutions, and organizations having related responsibilities, basic data on chemical, physical, and biological effects of varying air quality and other information pertaining to air pollution and the prevention and control thereof; and

(8) develop effective and practical processes, methods, and prototype devices for the prevention or control of air pollution.

(c) [(1)] In carrying out the provisions of subsection (a) of this section the Secretary shall conduct research on, and survey the results of other scientific studies on, the harmful effects on the health or welfare of persons by the various known air pollution agents (or combinations of agents).

[(2) Whenever he determines that there is a particular air pollution agent (or combination of agents), present in the air in certain quantities, producing effects harmful to the health or welfare of persons, the Secretary shall compile and publish criteria reflecting accurately the latest scientific knowledge useful in indicating the kind and extent of such effects which may be expected from the presence of such air pollution agent (or combination of agents) in the air in varying quantities. Any such criteria shall be published for informational purposes and made available to municipal, State, and interstate air pollution control agencies. He shall revise and add to such criteria whenever necessary to reflect accurately developing scientific knowledge.

[(3) The Secretary may recommend to such air pollution control agencies and to other appropriate organizations such criteria of air quality as in his judgment may be necessary to protect the public health and welfare.]

(d) The Secretary is authorized to construct such facilities and staff and equip them as he determines to be necessary to carry out his functions under this Act.

(e) If, in the judgment of the Secretary, an air pollution probtrol agencies and to other appropriate organizations such criteria charges into the atmosphere, he may call a conference concerning this potential air pollution problem to be held in or near one or more of the places where such discharge or discharges are occur-

ring or will occur. All interested persons shall be given an opportunity to be heard at such

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conference, either orally or in writing, and shall be permitted to appear in person or by representative in accordance with procedures prescribed by the Secretary. If the Secretary finds, on the basis of the evidence presented at such conference, that the discharge or discharges if permitted to take place or continue are likely to cause or contribute to air pollution subject to abatement under section [105(a)] *107(a)*, he shall send such findings, together with recommendations concerning the measures which he finds reasonable and suitable to prevent such pollution, to the person or persons whose actions will result in the discharge or discharges involved; to air pollution agencies of the State or States and of the municipality or municipalities where such discharge or discharges will originate; and to the interstate air pollution control agency, if any, in the jurisdictional area of which any such municipality is located. Such findings and recommendations shall be advisory only, but shall be admitted, together with the record of the conference, as part of the [record of] proceedings under subsections [(c), (d), and (e) of section 105] *(d), (e), and (f) of section 107.*

GRANTS FOR SUPPORT OF AIR POLLUTION *PLANNING AND* CONTROL PROGRAMS

SEC. 104. (a) *(1)* The Secretary is authorized to make grants to air pollution control agencies in an amount up to two-thirds of the cost of *planning,* developing, establishing, or improving, and grants to such agencies in an amount up to one-half of the cost of maintaining, programs for the prevention and control of air pollution *and programs for the implementation of air quality standards authorized by this Act: Provided,* That the Secretary is authorized to make grants to [intermunicipal or interstate air pollution control agencies (described in section 302(b) (2) and (4))] *air pollution control agencies within the meaning of sections 302(b) (2) and 302(b) (4)* in an amount up to three-fourths of the cost of *planning,* developing, establishing, or improving[,] and up to three-fifths of the cost of maintaining, regional air [pollution] *quality* control programs. As used in this subsection[,] the term "regional air [pollution] *quality* control program" means a program for the prevention and control of air pollution *or the implementation of air quality standards programs as authorized by this*

Act, in an area that includes the areas of two or more municipalities[,] whether in the same or different States.

(2) Before approving any grant under this subsection to any air pollution control agency within the meaning of sections 302 (b) (2) and 302 (b) (4), the Secretary shall receive assurances that such agency provides for adequate representation of appropriate State, interstate, local, and (when appropriate) international, interests in the air quality control region.

(3) Before approving any planning grant under this subsection to any air pollution control agency within the meaning of sections 302 (b) (2) and 302 (b) (4), the Secretary shall receive assurances that such agency has the capability of developing a comprehensive air quality plan for the air quality control region, which plan shall include (when appropriate) a recommended system of alerts to avert and reduce the risk of situations in which there may be imminent and serious danger to the public health or welfare from air pollutants and 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,

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population and naturally occurring factors which shall affect such standards.

(b) From the sums available for the purposes of subsection (a) of this section for any fiscal year, the Secretary shall from time to time make grants to air pollution control agencies upon such terms and conditions as the Secertary may find necessary to carry out the purpose of this section. In establishing regulations for the granting of such funds the Secretary shall, so far as practicable, give due consideration to (1) the population, (2) the extent of the actual or potential air pollution problem, and (3) the financial need of the respective agencies. No agency shall receive any grant under this section during any fiscal year when its expenditures of non-Federal funds [,] for other than nonrecurrent expenditures[,] for air pollution control programs will be less than its expenditures were for such programs during the preceding fiscal year; and no agency shall receive any grant under this section with respect to the mainenance 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] *or* other non-Federal funds that would in the absence of such grant be made available for the

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maintenance of such program, and will in no event supplant such State, local, [and] *or* other non-Federal funds. No grant shall be made under this section until the Secretary has consulted with the appropriate official as designated by the Governor or Governors of the State or States affected.

(c) Not more than [12½] *10* per centum of the total of funds appropriated or allocated for the purposes of subsection (a) of this section shall be granted for air pollution control programs in any one State. In the case of a grant for a program in an area crossing State boundaries, the Secretary shall determine the portion of such grant that is chargeable to the percentage limitation under this subsection for each State into which such area extends.

Interstate Air Quality Agencies or Commissions

Sec. 105. (a) For the purpose of expediting the establishment of air quality standards in an interstate air quality control region designated pursuant to section 106(a)(2), the Secretary is authorized to pay, for two years, up to 100 per centum of the air quality planning program costs of any agency designated by the Governors of the affected States, which agency shall be capable of recommending to the Governors standards of air quality and plans for implementation thereof and shall include representation from the States and appropriate political subdivisions within the air quality control region. After the initial two-year period the Secretary is authorized to make grants to such agency in an amount up to three-fourths of the air quality planning program costs of such agency.

(b)(1) Whenever the Secretary deems it necessary to expedite the establishment of standards for an interstate air quality control region designated pursuant to section 106(a)(2) he may, after consultation with the Governors of the affected States, designate or establish an air quality planning commission for the purpose of developing recommended regulations setting forth standards of air quality to be applicable to such air quality control region.

(2) Such Commission shall consist of the Secretary or his designee who shall serve as Chairman, and adequate representation of appropriate

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State, interstate, local and (when appropriate) international, interests in the designated air quality control region.

(3) The Secretary shall, within available funds, provide such

staff for such Commission as may be necessary to enable it to carry out its functions effectively, and shall pay the other expenses of the Commission; and may also accept for the use by such Commission, funds, property, or services contributed by the State involved or political subdivisions thereof.

(4) Each appointee from a State, other than an official or employee thereof, or of any political subdivision thereof, shall, while engaged in the work of the Commission, receive compensation at a rate fixed by the Secretary, but not in excess of $100 per diem, including traveltime, and while away from his home or regular place of business, he may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law (5 U.S.C. 3109) for persons in the Government service employed intermittently.

Air Quality Control Regions, Criteria, and Control Techniques

Sec. 106. (a) (1) The Secretary shall, as soon as practicable, but not later than one year after the date of enactment of the Air Quality Act of 1967, define for the purposes of this Act, atmospheric areas of the Nation on the basis of those conditions, including, but not limited to, climate, meteorology, and topography, which affect the interchange and diffusion of pollutants in the atmosphere.

(2) For the purpose of establishing ambient air quality standards pursuant to section 107, and for administrative and other purposes, the Secretary, after consultation with appropriate State and local authorities, shall, within eighteen months after the date of enactment of the Air Quality Act of 1967, designate air quality control regions based on jurisdictional boundaries, urban-industrial concentrations, and other factors including atmospheric areas necessary to provide adequate implementation of air quality standards. The Secretary shall immediately notify the Governor or Governors of the affected State or States of such designation.

(b) (1) The Secretary shall, after consultation with appropriate advisory committees and Federal departments and agencies, from time to time, but as soon as particable, develop and issue to the States such criteria of air quality as in his judgment may be requisite for the protection of the public health and welfare: Provided, That any criteria issued prior to enactment of this section shall be reevaluated in accordance with the consultation procedure and other provisions of this section and, if necessary, modified and reissued. Such issuance shall be announced in the Federal Register and copies shall be made available to the general public.

(2) Such criteria shall accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on health and welfare which may be expected from the presence of an air pollution agent, or combination of agents in the ambient air, in varying quantities.

(3) Such criteria shall include those variable factors which of themselves or in combination with other factors may alter the effects on public health and welfare of any subject agent or combination of agents, including, but not limited to, atmospheric conditions, and the types of air pollution agent or agents which, when present in the atmosphere, may interact with such subject agent or agents, to produce an adverse effect on public health and welfare.

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(c) The Secretary shall, after consultation with appropriate advisory committees and Federal departments and agencies, issue to the States and appropriate air pollution control agencies information on those recommended pollution control techniques the application of which is necessary to achieve levels of air quality set forth in criteria issued pursuant to subsection (b), including those criteria subject to the proviso in subsection (b) (1), which information shall include technical data relating to the technology and costs of emission control. Such recommendations shall include such data as are available on the latest available technology and economic feasibility of alternative methods of prevention and control of air contamination including cost-effectiveness analyses. Such issuance shall be announced in the Federal Register and copies shall be made available to the general public.

(d) The Secretary shall, from time to time, revise and reissue material issued pursuant to subsections (b) and (c) in accordance with procedures established in such subsections.

AIR QUALITY STANDARDS AND ABATEMENT OF AIR POLLUTION

SEC. [105] *107.* (a) The pollution of the 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.

(b) Consistent with the policy declaration of this title, municipal, State, and interstate action to abate air pollution shall be encouraged and shall not be displaced by Federal enforcement action except as otherwise provided by or pursuant to a court order under subsection [(g)] *(c), (h), or (k).*

(c) (1) If, after receiving any air quality criteria and recom-

mended control techniques issued pursuant to section 106, the Governor of a State, within ninety days of such receipt, files a letter of intent that such State will within one hundred and eighty days, and from time to time thereafter, adopt, after public hearings, ambient air quality standards applicable to any designated air quality control region or portions thereof within such State and within one hundred and eighty days thereafter, and from time to time as may be necessary, adopts a plan for the implementation, maintenance, and enforcement of such standards of air quality adopted, and if such standards and plan are established in accordance with the letter of intent and if the Secretary determines that such State standards are consistent with the air quality criteria and recommended control techniques issued pursuant to section 106; that the plan is consistent with the purposes of the Act insofar as it assures achieving such standards of air quality within a reasonable time; and that a means of enforcement by State action, including authority comparable to that in subsection (k) of this section, is provided, such State standards and plan shall be the air quality standards applicable to such State. If the Secretary determines that any revised State standards and plan are consistent with the purposes of this Act and this subsection, such standards and plan shall be the air quality standards applicable to such State.

(2) If a State does not (a) file a letter of intent or (b) establish air quality standards in accordance with paragraph (1) of this subsection with respect to any air quality control region or pare regulations setting forth standards of air quality consistent the purpose of this Act, or the Governor of any State affected by air quality standards established pursuant to this subsection petitions for a revision in such standards, the

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Secretary may after reasonable notice and a conference of representatives of appropriate Federal departments and agencies, interstate agencies, States, municipalities, and industries involved, prepare regulations setting forth standards of air quality consistent with the air quality criteria and recommended control techniques issued pursuant to section 106, to be applicable to such air quality control region or portions thereof. If, within six months from the date the Secretary publishes such regulations, the State has not adopted air quality standards found by the Secretary to be consistent with the purposes of this Act, or a petition for public hearing has not been filed under paragraph (3) of this subsection, the Secretary shall promulgate such standards.

(3) If at any time prior to thirty days after standards have been promulgated under paragraph (2) of this subsection, the Governor of any State affected by such standards petitions the Secretary for a hearing, the Secretary shall call a public hearing for the purpose of receiving testimony from State and local pollution control agencies and other interested parties affected by the proposed standards, to be held in or near one or more of the places where the air quality standards will take effect, before a hearing board of five or more persons appointed by the Secretary. Each State which would be affected by such standards shall be given an opportunity to select a member of the hearing board. Each Federal department, agency, or instrumentality having a substantial interest in the subject matter as determined by the Secretary shall be given an opportunity to select one member of the hearing board and not less than a majority of the hearing board shall be persons other than officers or employees of the Department of Health, Education, and Welfare. The members of the board who are not officers or employees of the United States, while participating in the hearing conducted by such hearing board or otherwise engaged in the work of such hearing board, shall be entitled to receive compensation at a rate fixed by the Secretary, but not exceeding $100 per diem, including traveltime, and while away from their homes or regular place of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703, title 5, of the United States Code for persons of the Government service employed intermittently. At least thirty days prior to the date of such hearing notice of such hearing shall be published in the Federal Register and given to parties notified of the conference required in paragraph (2) of this subsection. On the basis of the evidence presented at such hearing, the hearing board shall within ninety days, unless the Secretary determines a longer period is necessary, make findings as to whether the standards published or promulgated by the Secretary should be approved or modified and transmit its findings to the Secretary. If the hearing board approves the standards as published or promulgated by the Secretary, the standards shall take effect on receipt by the Secretary of the hearing board's recommendations. If the hearing board recommends modification in the standards as published or promulgated by the Secretary, the Secretary shall promulgate revised regulations setting forth standards of air quality in accordance with the hearing board's recommendations which will become effective immediately upon promulgation.

(4) 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 under this subsection, and he finds that such lowered air quality results from the failure of a State to take reasonable action to enforce such stand-

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ards, 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. If such failure does not cease within one hundred and eighty days from the date of the Secretary's notification, the Secretary—

> (*i*) *in the case of pollution of air which is endangering the health or welfare of persons in a State other than that in which the discharge or discharges (causing or contributing to such pollution) originate, 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 pollution.*
>
> (*ii*) *in the case of pollution of air which is endangering the health or welfare of persons only in the State in which the discharge or discharges (causing or contributing to such pollution) originate, 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.*

In any suit brought under the provisions of this subsection the court shall receive in evidence a transcript of the proceedings of the hearing provided for in this subsection, together with the recommendations of the hearing board and the recommendations and standards promulgated by the Secretary, and such additional evidence, including that relating to the alleged violation of the standards, as it deems necessary to complete review of the standards and to determination of all other issues relating to the alleged violation. The court, giving due consideration to the practicability and to the technological and economic feasibility of complying with such standards, shall have jurisdiction to enter such judgment and orders enforcing such judgment as the public interest and the equities of the case may require.

(5) *In connection with any hearings under this section no witness or any other person shall be required to divulge trade secrets or secret processes.*

[(c)] (*d*)(1)(A) Whenever requested by the Governor of any State, a State air pollution control agency, or (with the concurrence of the Governor and the State air pollution control agency for the State in which the municipality is situated) the governing body of any municipality, the Secretary shall, if such request refers to air pollution which is alleged to endanger the health or welfare of persons in a State other than that in which the discharge or discharges (causing or contributing to such pollution) originate, give formal notification thereof to the air pollution control agency of the municipality where such discharge or discharges originate, to the air pollution control agency of the State in which such municipality is located, and to the interstate air pollution control agency, if any, in whose jurisdictional area such municipality is located, and shall call promptly a conference of such agency or agencies and of the air pollution control agencies of the municipalities which may be adversely affected by such pollution, and the air pollution control agency, if any, of each State, or for each area, in which any such municipality is located.

(B) Whenever requested by the Governor of any State, a State air pollution control agency, or (with the concurrence of the Governor

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and the State air pollution control agency for the State in which the municipality is situated) the governing body of any municipality, the Secretary shall, if such request refers to alleged air pollution which is endangering the health or welfare of persons only in the State in which the discharge or discharges (causing or contributing to such pollution) originate and if a municipality affected by such air pollution, or the municipality in which such pollution originates, has either made or concurred in such request, give formal notification thereof to the State air pollution control agency, to the air pollution control agencies of the municipality where such discharge or discharges originate, and of the municipality or municipalities alleged to be adversely affected thereby, and to any interstate air pollution control agency, whose jurisdictional area includes any such municipality and shall promptly call a conference of such agency or agencies, unless in the judgment of the Secretary, the effect of such pollution is not of such

significance as to warrant exercise of Federal jurisdiction under this section.

(C) The Secretary may, after consultation with State officials of all affected States, also call such a conference whenever, on the basis of reports, surveys, or studies, he has reason to believe that any pollution referred to in subsection (a) is occurring and is endangering the health and welfare of persons in a State other than that in which the discharge or discharges originate. The Secretary shall invite the cooperation of any municipal, State, or interstate air pollution control agencies having jurisdiction in the affected area on any surveys or studies forming the basis of conference action.

(D) Whenever the Secretary, upon receipt of reports, surveys, or studies from any duly constituted international agency, has reason to believe that any pollution referred to in subsection (a) which endangers the health or welfare of persons in a foreign country is occurring, or whenever the Secretary of State requests him to do so with respect to such pollution which the Secretary of State alleges is of such a nature, the Secretary of Health, Education, and Welfare shall give formal notification thereof to the air pollution control agency of the municipality where such discharge or discharges originate, to the air pollution control agency of the State in which such municipality is located, and to the interstate air pollution control agency, if any, in the jurisdictional area of which such municipality is located, and shall call promptly a conference of such agency or agencies. The Secretary shall invite the foreign country which may be adversely affected by the pollution to attend and participate in the conference, and the representative of such country shall, for the purpose of the conference and any further proceeding resulting from such conference, have all the rights of a State air pollution control agency. This subparagraph shall apply only to a foreign country which the Secretary determines has given the United States essentially the same rights with respect to the prevention or control of air pollution occurring in that country as is given that country by this subparagraph.

(2) The agencies called to attend such conference may bring such persons as they desire to the conference. [Not less than three week's prior notice of the conference date shall be given to such agencies.] *The Secretary shall deliver to such agencies and make available to other interested parties, at least thirty days prior to any such conference, a Federal report with respect to the matters*

before the conference, including data and conclusions or findings (if any); and shall give at least thirty

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days' prior notice of the conference date to any such agency, and to the public by publication on at least three different days in a newspaper or newspapers of general circulation in the area. The chairman of the conference shall give interested parties an opportunity to present their views to the conference with respect to such Federal report, conclusions or findings (if any), and other pertinent information. The Secretary shall provide that a transcript be maintained of the proceedings of the conference and that a copy of such transcript be made available on request of any participant in the conference at the expense of such participant.

(3) Following this conference, the Secretary shall prepare and forward to all air pollution control agencies attending the conference a summary of conference discussions including (A) occurrence of air pollution subject to abatement under this Act; (B) adequacy of measures taken toward abatement of the pollution; and (C) nature of delays, if any, being encountered in abating the pollution.

[(d)] (*e*) If the Secretary believes, upon the conclusion of the conference or thereafter, that effective progress toward abatement of such pollution is not being made and that the health or welfare of any persons is being endangered, he shall recommend to the appropriate State, interstate, or municipal air pollution control agency (or to all such agencies) that the necessary remedial action be taken. The Secretary shall allow at least six months from the date he makes such recommendations for the taking of such recommended action.

[(e)] (*f*) (1) If, at the conclusion of the period so allowed, such remedial action or other action which in the judgment of the Secretary is reasonably calculated to secure abatement of such pollution has not been taken, the Secretary shall call a public hearing, to be held in or near one or more of the places where the discharge or discharges causing or contributing to such pollution originated, before a hearing board of five or more persons appointed by the Secretary. Each State in which any discharge causing or contributing to such pollution originates and each State claiming to be adversely affected by such pollution shall be given an opportunity to select one member of such hearing board and each Federal department, agency, or instrumentality having a substantial interest in the subject matter as determined by the

Secretary shall be given an opportunity to select one member of such hearing board, and one member [of such hearing board] shall be a representative of the appropriate interstate air pollution agency if one exists, and not less than a majority of such hearing board shall be persons other than officers or employees of the Department of Health, Education, and Welfare. At least three weeks' prior notice of such hearing shall be given to the State, interstate, and municipal air pollution control agencies called to attend such hearing and to the alleged polluter or polluters. *All interested parties shall be given a reasonable opportunity to present evidence to such hearing board.*

(2) On the basis of evidence presented at such hearing, the hearing board shall make findings as to whether pollution referred to in subsection (a) is occurring and whether effective progress toward abatement thereof is being made. If the hearing board finds such pollution is occurring and effective progress toward abatement thereof is not being made it shall make recommendations to the Secretary concerning the measures, if any, which it finds to be reasonable and suitable to secure abatement of such pollution.

(3) The Secretary shall send such findings and recommendations to the person or persons discharging any matter causing or contributing

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to such pollution; to air pollution control agencies of the State or States and of the municipality or municipalities where such discharge or discharges originate; and to any interstate air pollution control agency whose jurisdictional area includes any such municipality, together with a notice specifying a reasonable time (not less than six months) to secure abatement of such pollution.

[(f)] (*g*) If action reasonably calculated to secure abatement of the pollution within the time specified in the notice following the public hearing is not taken, the Secretary—

(1) in the case of pollution of air which is endangering the health or welfare of persons (A) in a State other than that in which the discharge or discharges (causing or contributing to such pollution) originate, or (B) in a foreign country which has participated in a conference called under subparagraph (D) of subsection [(c)] (*d*) of this section and in all proceedings under this section resulting from such conference, 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 pollution[, and].

(2) in the case of pollution of air which is endangering the health or welfare of persons only in the State in which the discharge or discharges (causing or contributing to such pollution) originate, 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.

[(g)] (*h*) The court shall receive in evidence in any suit brought in a United States court under subsection [(f)] (*g*) of this section a transcript of the proceedings before the board and a copy of the board's recommendations and shall receive such further evidence as the court in its discretion deems proper. The court, giving 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, shall have jurisdiction to enter such judgment, and orders enforcing such judgement, as the public interest and the equities of the case may require.

[(h)] (*i*) Members of any hearing board appointed pursuant to subsection [(e)] (*f*) who are not regular full-time officers or employees of the United States shall, while participating in the hearing conducted by such board or otherwise engaged on the work of such board, be entitled to receive compensation at a rate fixed by the Secretary, but not exceeding [$50] *$100* per diem, including traveltime, and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law (5 U.S.C. 73b–2) for persons in the Government service employed intermittently.

[(i)] (*j*) (1) In connection with any conference called under this section, the Secretary is authorized to require any person whose activities result in the emission of air pollutants causing or contributing to air pollution to file with him, in such form as he may prescribe, a report,

based on existing data, furnishing to the Secretary such information as may reasonably be required as to the character, kind, and quantity of pollutants discharged and the use of devices or other means to prevent or reduce the emission of pollutants by the person filing such a report. After a conference has been held with respect to any such pollution the Secretary shall require such reports from the person whose activities result in such pollution only to the extent recommended by such conference. Such report shall be made under oath or otherwise, as the Secretary may prescribe, and shall be filed with the Secretary within such reasonable period as the Secretary may prescribe, unless additional time be granted by the Secretary. No person shall be required in such report to divulge trade secrets or secret processes and all information reported shall be considered confidential for the purposes of section 1905 of title 18 of the United States Code.

(2) If any person required to file any report under this subsection shall fail to do so within the time fixed by the Secretary for filing the same, and such failure shall continue for thirty days after notice of such default, such person shall forfeit to the United States the sum of $100 for each and every day of the continuance of such failure, which forfeiture shall be payable into the Treasury of the United States, and shall be recoverable in a civil suit in the name of the United States brought in the district where such person has his principal office or in any district in which he does business: *Provided,* That the Secretary may upon application therefor remit or mitigate any forfeiture provided for under this subsection and he shall have authority to determine the facts upon all such applications.

(3) It shall be the duty of the various United States attorneys, under the direction of the Attorney General of the United States, to prosecute for the recovery of such forfeitures.

(k) Notwithstanding any other provision of this section, the Secretary, upon receipt of evidence that a particular pollution source or combination of sources (including moving sources) is presenting an imminent and substantial endangerment to the health of persons, and finding that appropriate State or local authorities have not acted to abate such sources, may request the Attorney General to bring suit on behalf of the United States in the appropriate United States district court to immediately enjoin any contributor to the alleged pollution to stop the emission of contaminants causing such pollution or to take such other action as may be necessary.

[AUTOMOTIVE VEHICLE AND FUEL POLLUTION

[SEC. 106. (a) The Secretary shall encourage the continued efforts on the part of the automotive and fuel industries to develop devices and fuels to prevent pollutants from being discharged from the exhaust of automotive vehicles, and to this end shall maintain liaison with automotive vehicles, exhaust control device, and fuel manufacturers. For this purpose, he shall appoint a technical committee whose membership shall consist of an equal number of representatives of the Department and of automotive vehicle exhaust control device, and fuel manufacturers. The committee shall meet from time to time at the call of the Secretary to evaluate progress in the development of such devices and fuels and to develop and recommend research programs which could lead to the development of such devices and fuels.

[(b) One year after enactment of this section, and semiannually thereafter, the Secretary shall report to the Congress on measures

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taken toward the resolution of the vehicle exhaust pollution problem and efforts to improve fuels including (A) occurrence of pollution as a result of discharge of pollutants from automotive exhaust; (B) progress of research into development of devices and fuels to reduce pollution from exhaust of automotive vehicles; (C) criteria on degree of pollutant matter discharged from automotive exhausts; (D) efforts to improve fuels so as to reduce emission of exhaust pollutants; and (E) his recommendations for additional legislation, if necessary, to regulate the discharge of pollutants from automotive exhausts.]

Standards to Achieve Higher Level of Air Quality

Sec. 108. Nothing in this title shall prevent a State, political subdivision, intermunicipal or interstate agency from adopting standards and plans to implement an air quality program which will achieve a higher level of ambient air quality than approved by the Secretary.

President's Air Quality Advisory Board and Advisory Committees

Sec. 109. (a) (1) There is hereby established in the Department of Health, Education, and Welfare an Air Quality Advisory Board,

composed of the Secretary or his designee, who shall be Chairman, and fifteen members appointed by the President, none of whom shall be Federal officers or employees. The appointed members, having due regard for the purposes of this Act, shall be selected from among representatives of various State, interstate, and local governmental agencies, of public or private interests contributing to, affected by, or concerned with air pollution, and of other public and private agencies, organizations, or groups demonstrating an active interest in the field of air pollution prevention and control, as well as other individuals who are expert in this field.

(2) Each member appointed by the President shall hold office for a term of three years, except that (A) any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term, and (B) the terms of office of the members first taking office pursuant to this subsection shall expire as follows: five at the end of one year after the date of appointment, five at the end of two years after such date, and five at the end of three years after such date, as designated by the President at the time of appointment, and (C) the term of any member under the preceding provisions shall be extended until the date on which his successor's appointment is effective. None of the members shall be eligible for reappointment within one year after the end of his preceding term, unless such term was for less than three years.

(b) The Board shall 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.

(c) Such clerical and technical assistance as may be necessary to discharge the duties of the Board and such other advisory committees as hereinafter authorized shall be provided from the personnel of the Department of Health, Education, and Welfare.

(d) In order to obtain assistance in the development and implementation of the purpose of this Act including air quality criteria, recommended control techniques, standards, research and development, and to encourage

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the continued efforts on the part of industry to improve air quality and to develop economically feasible methods for the control and abatement of air pollution, the Secretary shall from time to time establish advisory committees. Committee members shall include, but not be limited to, persons who are knowledgeable concerning

air quality from the standpoint of health, welfare, economics, or technology.

(e) The members of the Board and other advisory committees appointed pursuant to this Act who are not officers or employees of the United States, while attending conferences or meetings of the Board or while otherwise serving at the request of the Secretary, shall be entitled to receive compensation at a rate to be fixed by the Secretary, but not exceeding $100 per diem, including traveltime, and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703 of title 5 of the United States Code for persons in the Government service employed intermittently.

COOPERATION BY FEDERAL AGENCIES TO CONTROL AIR POLLUTION FROM FEDERAL FACILITIES

SEC. [107] *110.* (a) It is hereby declared to be the intent of Congress that any Federal department or agency having jurisdiction over any building, installation, or other property shall, to the extent practicable and consistent with the interests of the United States and within any available appropriations, cooperate with the Department of Health, Education, and Welfare and with any air pollution control agency in preventing and controlling the pollution of the air in any area insofar as the discharge of any matter from or by such building, installation, or other property may cause or contribute to pollution of the air in such area.

(b) In order to control air pollution which may endanger the health or welfare of any person, the Secretary may establish classes of potential pollution sources for which any Federal department or agency having jurisdiction over any building, installation, or other property shall, before discharging any matter into the air of the United States, obtain a permit from the Secretary for such discharge, such permits to be issued for a specified period of time to be determined by the Secretary and subject to revocation if the Secretary finds pollution is endangering the health and welfare of any persons. In connection with the issuance of such permits, there shall be submitted to the Secretary such plans, specifications, and other information as he deems relevant thereto and under such conditions as he may prescribe. The Secretary shall report each January to the Congress the status of such permits and compliance therewith.

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TITLE II—[CONTROL OF AIR POLLUTION FROM MOTOR VEHICLES] *NATIONAL EMISSION STANDARDS ACT*

SHORT TITLE

SECTION 201. This title may be cited as the ["Motor Vehicle Air Pollution Control Act"] *"National Emission Standards Act"*.

ESTABLISHMENT OF STANDARDS

SEC. 202. (a) The Secretary shall by regulation, giving appropriate consideration to technological feasibility and economic costs, prescribe as soon as practicable standards, applicable to the emission of any kind of substance, from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause or contribute to, or are likely to cause or to contribute to, air pollution which endangers the health or welfare of any persons, and such standards shall apply to such vehicles or engines whether they are designed as complete systems or incorporate other devices to prevent or control such pollution.

(b) Any regulations initially prescribed under this section, and amendments thereto, with respect to any class of new motor vehicles or new motor vehicle engines shall become effective on the effective date specified in the order promulgating such regulations which date shall be determined by the Secretary after consideration of the period reasonably necessary for industry compliance.

PROHIBITED ACTS

SEC. 203. (a) The following acts and the causing thereof are prohibited—

(1) in the case of a manufacturer of new motor vehicles or new motor vehicle engines for distribution in commerce, the manufacture for sale, the sale, or the offering for sale, or the introduction or delivery for introduction into commerce, or the importation into the United States for sale or resale, of any new motor vehicle or new motor vehicle engine, manufactured after the effective date of regulations under this title which are applicable to such vehicle or engine unless it is in conformity with regulations prescribed under [section 202] *this title* (except as provided in subsection (b));

(2) for any person to fail or refuse to permit access to or copying of records or to fail to make reports or provide information required under section 207; or

(3) for any person to remove or render inoperative any

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device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this title prior to its sale and delivery to the ultimate purchaser.

(b) (1) The Secretary may exempt any new motor vehicle or new motor vehicle engine, or class thereof, from subsection (a), upon such terms and conditions as he may find necessary to protect the public health or welfare, for the purpose of research, investigations, studies, demonstrations, or training, or for reasons of national security.

(2) A new motor vehicle or new motor vehicle engine offered for importation by a manufacturer in violation of subsection (a) shall

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be refused admission into the United States, but the Secretary of the Treasury and the Secretary of Health, Education, and Welfare may, by joint regulation, provide for deferring final determination as to admission and authorizing the delivery of such a motor vehicle or engine offered for import to the owner or consignee thereof upon such terms and conditions (including the furnishing of a bond) as may appear to them appropriate to insure that any such motor vehicle or engine will be brought into conformity with the standards, requirements, and limitations applicable to it under this title. The Secretary of the Treasury shall, if a motor vehicle or engine is finally refused admission under this paragraph, cause disposition thereof in accordance with the customs laws unless it is exported, under regulations prescribed by such Secretary, within ninety days of the date of notice of such refusal or such additional time as may be permitted pursuant to such regulations, except that disposition in accordance with the customs laws may not be made in such manner as may result, directly or indirectly, in the sale, to the ultimate consumer, of a new motor vehicle or new motor vehicle engine that fails to comply with applicable standards of the Secretary of Health, Education, and Welfare under this title.

(3) A new motor vehicle or new motor vehicle engine intended solely for export, and so labeled or tagged on the outside of the container and on the vehicle or engine itself, shall not be subject to the provisions of subsection (a).

INJUNCTION PROCEEDINGS

SEC. 204. (a) The district courts of the United States shall have

jurisdiction to restrain violations of paragraph (1), (2) or (3) of section 203(a).

(b) Actions to restrain such violations shall be brought by and in the name of the United States. In any such action, subpoenas for witnesses who are required to attend a district court in any district may run into any other district.

PENALTIES

SEC. 205. Any person who violates paragraph (1), (2), or (3) of section 203(a) shall be subject to a fine of not more than $1,000. Such violation with respect to sections 203(a)(1) and 203(a)(3) shall constitute a separate offense with respect to each new motor vehicle or new motor vehicle engine.

CERTIFICATION

SEC. 206. (a) Upon application of the manufacturer, the Secretary shall test, or require to be tested, in such manner as he deems appropriate, any new motor vehicle or new motor vehicle engine submitted by such manufacturer to determine whether such vehicle or engine conforms with the regulations prescribed under section 202 *or 208(b)* of this title. If such vehicle or engine conforms to such regulations the Secretary shall issue a certificate of conformity, upon such terms, and for such period not less than one year, as he may prescribe.

(b) Any new motor vehicle or any motor vehicle engine sold by such manufacturer which is in all material respects substantially the same construction as the test vehicle or engine for which a certificate has been issued under subsection (a), shall for the purposes

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of this Act be deemed to be in conformity with the regulations issued under section 202 of this title.

RECORDS AND REPORTS

SEC. 207. (a) Every manufacturer shall establish and maintain such records, make such reports, and provide such information as the Secretary may reasonably require to enable him to determine whether such manufacturer has acted or is acting in compliance with this title and regulations thereunder and shall, upon request of an officer or employee duly designated by the Secretary,

permit such officer or employee at reasonable times to have access to and copy such records.

(b) All information reported or otherwise obtained by the Secretary or his representative pursuant to subsection (a), which information contains or relates to a trade secret or other matter referred to in section 1905 of title 18 of the United States Code, shall be considered confidential for the purpose of such section 1905, except that such information may be disclosed to other officers or employees concerned with carrying out this Act or when relevant in any proceeding under this Act. Nothing in this section shall authorize the withholding of information by the Secretary or any officer or employee under his control, from the duly authorized committees of the Congress.

State Standards

Sec. 208. (a) No State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this title. No State shall require certification, inspection, or any other approval relating to the control of emissions from any new motor vehicle or new motor vehicle engine as condition precedent to the initial retail sale, titling (if any), or registration of such motor vehicle, motor vehicle engine, or equipment.

(b) The Secretary may, after notice and opportunity for public hearings, upon application of any State which has adopted standards (other than crankcase emission standards) for the control of emissions from new motor vehicles or new motor vehicle engines prior to March 30, 1966, prescribe standards limited to such State, which are more stringent than, or apply to emissions or substances not covered by, the nationally applicable Federal standards prescribed pursuant to section 202, if he finds that such State requires such more stringent or other standards to meet compelling and extraordinary conditions and that such more stringent or other standards prescribed hereunder are consistent with this title; and such more stringent or other standards prescribed hereunder shall be regarded as if prescribed pursuant to section 202, with respect to new motor vehicles or new motor vehicle engines manufactured for sale, sold or offered for such sale in, or introduced or delivered for introduction into, such State.

(c) Nothing in this title shall preclude or deny to any State or political subdivision thereof the right otherwise to control, regu-

late, or restrict the use, operation, or movement of registered or licensed motor vehicles.

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Federal Assistance in Developing Vehicle Inspection Programs

Sec. 209. The Secretary is authorized to make grants to appropriate State air pollution control agencies in an amount up to two-thirds of the cost of developing meaningful uniform motor vehicle emission device inspection and emission testing programs except that (1) no grant shall be made for any part of any State vehicle inspection program which does not directly relate to the cost of the air pollution control aspects of such a program; and (2) no such grant shall be made unless the Secretary of Transportation has certified to the Secretary that such program is consistent with any highway safety program developed pursuant to section 402 of title 23 of the United States Code.

Registration of Fuel Additives

Sec. 210. (a) The Secretary may by regulation designate any fuel or fuels, or any classes and uses thereof, and, after such date or dates as may be prescribed by him, no manufacturer or processor of any such fuel may deliver it for introduction into interstate commerce or to another person who, it can reasonably be expected, will deliver such fuel for such introduction unless any additive contained in such fuel has been registered with the Secretary in accordance with this section.

(b) Upon filing of an application containing or accompanied by such information as to the characteristics and composition of any additive for any fuel as the Secretary finds necessary, and including assurances that such additional information as the Secretary may reasonably require will upon request be provided, the Secretary shall register such additive.

(c) The Secretary shall make such provision, with respect to any additive, or any class or use thereof, or any information furnished in connection therewith, as in his judgment is necessary to protect any trade secret or is necessary in the interest of national security. Nothing in this section shall authorize the withholding of information by the Secretary or any officer or employee under his control, from the duly authorized committees of the Congress.

(d) Any person who violates subsection (a) shall forfeit and pay to the United States a civil penalty of $1,000 for each and

every day of the continuance of such violation, which shall accrue to the United States and be recovered in a civil suit in the name of the United States, brought in the district where such person has his principal office or in any district in which he does business. The Secretary may, upon application therefor, remit or mitigate any forfeiture provided for in this subsection, and he shall have authority to determine the facts upon all such applications.

(e) It shall be the duty of the various United States attorneys, under the direction of the Attorney General of the United States, to prosecute for the recovery of such forfeitures.

National Emissions Standards Study

Sec. 211. (a) The Secretary shall submit to the Congress, no later than two years after the effective date of this section, a comprehensive report on the need for and effect of national emission standards for stationary sources. Such report shall include: (A) information regarding identifiable health and welfare effects from single emission sources; (B) examples of specific plants, their location, and the contaminant or contaminants

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which, due to the amount or nature of emissions from such facilities, constitute a danger to public health or welfare; (C) an up-to-date list of those industries and the contaminant or contaminants which, in his opinion, should be subject to such national standards; (D) the relationship of such national emission standards to ambient air quality, including a comparison of situations wherein several plants emit the same contaminants in an air region with those in which only one such plant exists; (E) an analysis of the cost of applying such standards; and (F) such other information as may be appropriate.

(b) The Secretary shall conduct a full and complete investigation and study of the feasibility and practicability of controlling emissions from jet and piston aircraft engines and of establishing national emission standards with respect thereto, and report to Congress the results of such study and investigation within one year from the date of enactment of the Air Quality Act of 1967, together with his recommendations.

DEFINITIONS FOR TITLE II

SEC. [208] *212.* As used in this title—

(1) The term "manufacturer" *as used in sections 203, 206, 207,*

and 208 means any person engaged in the manufacturing or assembling of new motor vehicles or new motor vehicle engines, or importing such vehicles or engines for resale, or who acts for and is under the control of any such person in connection with the distribution of new motor vehicles or new motor vehicle engines, but shall not include any dealer with respect to new motor vehicles or new motor vehicle engines received by him in commerce.

(2) The term "motor vehicle" means any self-propelled vehicle designed for transporting persons or property on a street or highway.

(3) The term "new motor vehicle" means a motor vehicle the equitable or legal title to which has never been transferred to an ultimate purchaser; and the term "new motor vehicle engine" means an engine in a new motor vehicle or a motor vehicle engine the equitable or legal title to which has never been transferred to the ultimate purchaser.

(4) The term "dealer" means any person who is engaged in the sale or the distribution of new motor vehicles or new motor vehicle engines to the ultimate purchaser.

(5) The term "ultimate purchaser" means, with respect to any new motor vehicle or new motor vehicle engine, the first person who in good faith purchases such new motor vehicle or new engine for purposes other than resale.

(6) The term "commerce" means (A) commerce between any place in any State and any place outside thereof; and (B) commerce wholly within the District of Columbia.

TITLE III—GENERAL

ADMINISTRATION

SEC. 301. (a) The Secretary is authorized to prescribe such regulations as are necessary to carry out his functions under this Act. The Secretary may delegate to any officer or employee of the Department of Health, Education, and Welfare such of his powers and duties

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under this Act, except the making of regulations, as he may deem necessary or expedient.

(b) Upon the request of an air pollution control agency, personnel of the Public Health Service may be detailed to such agency for the purpose of carrying out the provisions of this Act. The

provisions of section 214(d) of the Public Health Service Act shall be applicable with respect to any personnel so detailed to the same extent as if such personnel had been detailed under section 214(b) of that Act.

(c) Payments under grants made under this Act may be made in installments, and in advance or by way of reimbursement, as may be determined by the Secretary.

DEFINITIONS

SEC. 302. When used in this Act—

(a) The term "Secretary" means the Secretary of Health, Education, and Welfare.

(b) The term "air pollution control agency" means any of the following:

(1) A single State agency designated by the Governor of that State as the official State air pollution control agency for purposes of this Act;

(2) An agency established by two or more States and having substantial powers or duties pertaining to the prevention and control of air pollution;

(3) A city, county, or other local government health authority, or, in the case of any city, county, or other local government in which there is an agency other than the health authority charged with responsibility for enforcing ordinances or laws relating to the prevention and control of air pollution, such other agency; or

(4) An agency of two or more municipalities located in the same State or in different States and having substantial powers or duties pertaining to the prevention and control of air pollution.

(c) The term "interstate air pollution control agency" means—

(1) an air pollution control agency established by two or more States, or

(2) an air pollution control agency of two or more municipalities located in different States.

(d) The term "State" means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, and American Samoa.

(e) The term "person" includes an individual, corporation, partnership, association, State, municipality, and political subdivision of a State.

(f) The term "municipality" means a city, town, borough,

county, parish, district, or other public body created by or pursuant to State law.

(g) All language referring to adverse effects on welfare shall include but not be limited to injury to agricultural crops and livestock, damage to and the deterioration of property, and hazards to transportation.

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OTHER AUTHORITY NOT AFFECTED

SEC. 303. (a) Except as provided in subsection (b) of this section, this Act shall not be construed as superseding or limiting the authorities and responsibilities, under any other provision of law, of the Secretary or any other Federal officer, department, or agency.

(b) No appropriation shall be authorized or made under section 301, 311, or 314 of the Public Health Service Act for any fiscal year after the fiscal year ending June 30, 1964, for any purpose for which appropriations may be made under authority of this Act.

RECORDS AND AUDIT

SEC. 304. (a) Each recipient of assistance under this Act shall keep such records as the Secretary shall prescribe, including records which fully disclose the amount and disposition by such recipient of the proceeds of such assistance, the total cost of the project or undertaking in connection with which such assistance is given or used, and the amount of that portion of the cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

(b) The Secretary of Health, Education, and Welfare and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access for the purpose of audit and examinations to any books, documents, papers, and records of the recipients that are pertinent to the grants received under this Act.

Comprehensive Economic Cost Studies

Sec. 305. (a) In order to provide the basis for evaluating programs authorized by this Act and the development of new programs and to furnish the Congress with the information necessary for authorization of appropriations by fiscal years beginning after June 30, 1969, the Secretary, in cooperation with State, interstate,

and local air pollution control agencies, shall make a detailed estimate of the cost of carrying out the provisions of this Act; a comprehensive study of the cost of program implementation by affected units of government; and a comprehensive study of the economic impact of air quality standards on the Nation's industries, communities, and other contributing sources of pollution, including an analysis of the national requirements for and the cost of controlling emissions to attain such standards of air quality as may be established pursuant to this Act or applicable State law. The Secretary shall submit such detailed estimate and the results of such comprehensive study of cost for the five-year period beginning July 1, 1969, and the results of such other studies, to the Congress not later than January 10, 1969, and shall submit a reevaluation of such estimate and studies annually thereafter.

(b) The Secretary shall also make a complete investigation and study to determine (1) the need for additional trained State and local personnel to carry out programs assisted pursuant to this Act and other programs for the same purpose as this Act; (2) means of using existing Federal training programs to train such personnel; and (3) the need for additional trained personnel to develop, operate, and maintain those pollution control facilities designed and installed to implement air quality standards. He shall report the results of such investigation and study to the President and the Congress not later than July 1, 1969.

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Additional Reports to Congress

Sec. 306. Not later than six months after the effective date of this section and not later than January 10 of each calendar year beginning after such date, the Secretary shall report to the Congress on measures taken toward implementing the purpose and intent of this Act including, but not limited to, (1) the progress and problems associated with control of automotive exhaust emissions and the research efforts related thereto; (2) the development of air quality criteria and recommended emission control requirements; (3) the status of enforcement actions taken pursuant to this Act; (4) the status of State ambient air standards setting, including such plans for implementation and enforcement as have been developed; (5) the extent of development and expansion of air pollution monitoring systems; (6) progress and problems related to development of new and improved control techniques; (7) the development of quantitative and qualitative instrumentation to monitor emissions and air quality; (8) standards set or under

consideration pursuant to title II of this Act; (9) the status of State, interstate, and local pollution control programs established pursuant to and assisted by this Act; and (10) the reports and recommendations made by the President's Air Quality Advisory Board.

Labor Standards

Sec. 307. The Secretary shall take such action as may be necessary to insure that all laborers and mechanics employed by contractors or subcontractors on projects assisted under this Act shall be paid wages at rates not less than those prevailing for the same type of work on similar construction in the locality as determined by the Secretary of Labor, in accordance with the Act of March 3, 1931, as amended, known as the Davis-Bacon Act (46 Stat. 1494; 40 U.S.C. 276a—276a-5). The Secretary of Labor shall have, with respect to the labor standards specified in this subsection, the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 F.R. 3176; 64 Stat. 1267) and section 2 of the Act of June 13, 1934, as amended (48 Stat. 948; 40 U.S.C. 276c).

SEPARABILITY

SEC. [305] *308.* If any provision of this Act, or the application of any provision of this Act to any person or circumstance, is held invalid, the application of such provision to other persons or circumstances, and the remainder of this Act, shall not be affected thereby.

APPROPRIATIONS

[SEC. 309. There are hereby authorized to be appropriated to carry out this Act, $46,000,000 for the fiscal year ending June 30, 1967, $66,000,000 for the fiscal year ending June 30, 1968, and $74,000,000 for the fiscal year ending June 30, 1969.]

Sec. 309. There are hereby authorized to be appropriated to carry out this Act, other than section 103(d), $99,000,000 for the fiscal year ending June 30, 1968, $145,000,000 for the fiscal year ending June 30, 1969, and $184,300,000 for the fiscal year ending June 30, 1970.

SHORT TITLE

SEC. [307] *310.* This Act may be cited as the "Clean Air Act".

PROVISIONS OF EXISTING LAW CROSS-REFERRED TO IN THE REPORTED BILL

(5 U.S.C. 73b–2)

§ 73b–2. Travel expenses of consultants or experts: transportation of persons serving without compensation

Persons in the Government service employed intermittently as consultants or experts and receiving compensation on a per diem when actually employed basis may be allowed travel expenses while away from their homes or regular places of business, including per diem in lieu of subsistence while at place of such employment, in accordance with the Standardized Government Travel Regulations, sections 73a, 821—823 and 827—833 of this title, and persons serving without compensation or at $1 per annum may be allowed, while away from their homes or regular places of business, transportation in accordance with said regulations and section 73a of this title, and not to exceed $16 per diem within the limits of the continental United States and beyond such limits, not to exceed the rates of per diem established pursuant to section 836 of this title in lieu of subsistence en route and at place of such service or employment unless a higher rate is specifically provided in an appropriation or other Act: *Provided,* That where due to the unusual circumstances of a travel assignment the maximum per diem allowance would be much less than the amount required to meet the actual and necessary expenses of the trip, the heads of departments and establishments may, in accordance with regulations promulgated by the Director, Bureau of the Budget, pursuant to section 840 of this title, prescribe conditions under which reimbursement for such expenses may be authorized on an actual expenses basis not to exceed a maximum amount to be specified in the travel authorization, but in any event not to exceed, for each day in travel status, (1) the amount of $30, within the limits of the continental United States, or (2) the sum of the maximum per diem allowance plus $10, for travel outside such limits.

(5 U.S.C. 3109)

§ 3109. Employment of experts and consultants; temporary or intermittent

(a) For the purpose of this section—

(1) "agency" has the meaning given it by section 5721 of this title; and

(2) "appropriation" includes funds made available by statute under section 849 of title 31.

(b) When authorized by an appropriation or other statute, the head of an agency may procure by contract the temporary (not in excess of 1 year) or intermittent services of experts or consultants or

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an organization thereof, including stenographic reporting services. Services procured under this section are without regard to—

(1) the provisions of this title governing appointment in the competitive service;

(2) chapter 51 and subchapter III of chapter 53 of this title; and

(3) section 5 of title 41, except in the case of stenographic reporting services by an organization.

However, an agency subject to chapter 51 and subchapter III of chapter 53 of this title may pay a rate for services under this section in excess of the daily equivalent of the highest rate payable under section 5332 of this title only when specifically authorized by the appropriation or other statute authorizing the procurement of the services.

(5 U.S.C. 5703)

§ 5703. Per diem, travel, and transportation expenses; experts and consultants; individuals serving without pay

(a) For the purpose of this section, "appropriation" includes funds made available by statute under section 849 of title 31.

(b) An individual employed intermittently in the Government service as an expert or consultant and paid on a daily when-actually-employed basis may be allowed travel expenses under this subchapter while away from his home or regular place of business, including a per diem allowance under this subchapter while at his place of employment.

(c) An individual serving without pay or $1 a year may be allowed transportation expenses under this subchapter and a per diem allowance under this section while en route and at his place of service or employment while away from his home or regular place of business. Unless a higher rate is named in an appropria-

tion or other statute, the per diem allowance may not exceed—

(1) the rate of $16 for travel inside the continental United States; and

(2) the rates established under section 5702(a) of this title for travel outside the continental United States.

(d) Under regulations prescribed under section 5707 of this title, the head of the agency concerned may prescribe conditions under which an individual to whom this section applies may be reimbursed for the actual and necessary expenses of the trip, not to exceed an amount named in the travel authorization, when the maximum per diem allowance would be much less than these expenses due to the unusual circumstances of the travel assignment. The amount named in the travel authorization may not exceed—

(1) $30 for each day in a travel status inside the continental United States; or

(2) the maximum per diem, allowance plus $10 for each day in a travel status outside the continental United States.

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(10 U.S.C. 2353)[1]

§ 2353. Contracts: acquisition, construction, or furnishing of test facilities and equipment

(a) A contract of a military department for research or development, or both, may provide for the acquisition or construction by, or furnishing to, the contractor, of research, developmental, or test facilities and equipment that the Secretary of the military department concerned determines to be necessary for the performance of the contract. The facilities and equipment, and specialized housing for them, may be acquired or constructed at the expense of the United States, and may be lent or leased to the contractor with or without reimbursement, or may be sold to him at fair value. This subsection does not authorize new construction or improvements having general utility.

(b) Facilities that would not be readily removable or separable without unreasonable expense or unreasonable loss of value may not be installed or constructed under this section on property not owned by the United States, unless the contract contains—

(1) a provision for reimbursing the United States for the fair value of the facilities at the completion or termination of the contract or within a reasonable time thereafter;

(2) an option in the United States to acquire the underlying land; or

(3) an alternative provision that the Secretary concerned considers to be adequate to protect the interests of the United States in the facilities.

(c) Proceeds of sales or reimbursements under this section shall be paid into the Treasury as miscellaneous receipts, except to the extent otherwise authorized by law with respect to property acquired by the contractor.

(18 U.S.C. 1905)

§ 1905. Disclosure of confidential information generally

Whoever, being an officer or employee of the United States or of any department or agency thereof, publishes, divulges, discloses, or makes known in any manner or to any extent not authorized by law any information coming to him in the course of his employment or official duties or by reason of any examination or investigation made by, or or return, report or record made to or filed with, such department or agency or officer or employee thereof, which information concerns or relates to the trade secrets, processes, operations, style of work, or apparatus, or to the identity, confidential statistical data, amount or source of any income, profits, losses, or expenditures of any person, firm, partnership, corporation, or association; or permits any income return or copy thereof or any book containing any abstract or particulars thereof to be seen or examined by any person except as provided by law; shall be fined not more than $1,000, or imprisoned not more than one year, or both; and shall be removed from office or employment.

[1] This provision is not included in the House amendment, but is referred to in section 104(a) of the bill as passed by the Senate.

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(23 U.S.C. 402)

§ 402. Highway safety programs

(a) Each State shall have a highway safety program approved by the Secretary, designed to reduce traffic accidents and deaths, injuries, and property damage resulting therefrom. Such programs shall be in accordance with uniform standards promulgated by the Secretary. Such uniform standards shall be expressed in

terms of performance criteria. Such uniform standards shall be promulgated by the Secretary so as to improve driver performance (including, but not limited to, driver education, driver testing to determine proficiency to operate motor vehicles, driver examinations (both physical and mental) and driver licensing) and to improve pedestrian performance. In addition such uniform standards shall include, but not be limited to, provisions for an effective record system of accidents (including injuries and deaths resulting therefrom), accident investigations to determine the probable causes of accidents, injuries, and deaths, vehicle registration, operation, and inspection, highway design and maintenance (including lighting, markings, and surface treatment), traffic control, vehicle codes and laws, surveillance of traffic for detection and correction of high or potentially high accident locations, and emergency services. Such standards as are applicable to State highway safety programs shall, to the extent determined appropriate by the Secretary, be applicable to federally administered areas where a Federal department or agency controls the highways or supervises traffic operations. The Secretary shall be authorized to amend or waive standards on a temporary basis for the purpose of evaluating new or different highway safety programs instituted on an experimental, pilot, or demonstration basis by one or more States, where the Secretary finds that the public interest would be served by such amendment or waiver.

(b) (1) The Secretary shall not approve any State highway safety program under this section which does not—

(A) provide that the Governor of the State shall be responsible for the administration of the program.

(B) authorize political subdivisions of such State to carry out local highway safety programs within their jurisdictions as a part of the State highway safety program if such local highway safety programs are approved by the Governor and are in accordance with the uniform standards of the Secretary promulgated under this section.

(C) provide that at least 40 per centum of all Federal funds apportioned under this section to such State for any fiscal year will be expended by the political subdivisions of such State in carrying out local highway safety programs authorized in accordance with subparagraph (B) of this paragraph.

(D) provide that the aggregate expenditure of funds of the State and political subdivisions thereof, exclusive of Federal funds, for highway safety programs will be maintained at a level which does not fall below the average level of such ex-

penditures for its last two full fiscal years preceding the date of enactment of this section.

(E) provide for comprehensive driver training programs, including (1) the initiation of a State program for driver education

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in the school systems or for a significant expansion and improvement of such a program already in existence, to be administered by appropriate school officials under the supervision of the Governor as set forth in subparagraph (A) of this paragraph; (2) the training of qualified school instructors and their certification; (3) appropriate regulation of other driver training schools, including licensing of the schools and certification of their instructors; (4) adult driver training programs, and programs for the retraining of selected drivers; and (5) adequate research, development and procurement of practice driving facilities, simulators, and other similar teaching aids for both school and other driver training use.

(2) The Secretary is authorized to waive the requirement of subparagraph (C) of paragraph (1) of this subsection, in whole or in part, for a fiscal year for any State whenever he determines that there is an insufficient number of local highway safety programs to justify the expenditure in such State of such percentage of Federal funds during such fiscal year.

(c) Funds authorized to be appropriated to carry out this section shall be used to aid the States to conduct the highway safety programs approved in accordance with subsection (a), shall be subject to a deduction not to exceed 5 per centum for the necessary costs of administering the provisions of this section, and the remainder shall be apportioned among the several States. For the fiscal years ending June 30, 1967, June 30, 1968, and June 30, 1969, such funds shall be apportioned 75 per centum on the basis of population and 25 per centum as the Secretary in his administrative discretion many deem appropriate and thereafter such funds shall be apportioned as Congress, by law enacted hereafter, shall provide. On or before January 1, 1969, the Secretary shall report to Congress his recommendations with respect to a nondiscretionary formula for apportionment of funds authorized to carry out this section for the fiscal year ending June 30, 1970, and fiscal years thereafter. After December 31, 1968, the Secretary shall not apportion any funds under this subsection to any State

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which is not implementing a highway safety program approved by the Secretary in accordance with this section. Federal aid highway funds apportioned on or after January 1, 1969, to any State which is not implementing a highway safety program approved by the Secretary in accordance with this section shall be reduced by amounts equal to 10 per centum of the amounts which would otherwise be apportioned to such State under section 104 of this title, until such time as such State is implementing an approved highway safety program. Whenever he determines it to be in the public interest, the Secretary may suspend for such periods as he deems necessary, the application of the preceding sentence to a State. Any amount which is withheld from apportionment to any State under this section shall be reapportioned to the other States in accordance with the applicable provision of law.

(d) All provisions of chapter 1 of this title that are applicable to Federal-aid primary highway funds other than provisions relating to the apportionment formula and provisions limiting the expenditure of such funds to the Federal-aid systems, shall apply to the highway safety funds authorized to be appropriated to carry out this section, except as determined by the Secretary to be inconsistent with this section. In applying such provisions of chapter 1 in carrying out this

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section the term "State highway department" as used in such provisions shall mean the Governor of a State for the purposes of this section.

(e) Uniform standards promulgated by the Secretary to carry out this section shall be developed in cooperation with the States, their political subdivisions, appropriate Federal departments and agencies, and such other public and private organizations as the Secretary deems appropriate.

(f) The Secretary may make arrangements with other Federal departments and agencies for assistance in the preparation of uniform standards for the highway safety programs contemplated by subsection (a) and in the administration of such programs. Such departments and agencies are directed to cooperate in such preparation and administration, on a reimbursable basis.

(g) Nothing in this section authorizes the appropriation or expenditure of funds for (1) highway construction, maintenance, or design (other than design of safety features of highways to

be incorporated into standards) or (2) any purpose for which funds are authorized by section 403 of this title.

(31 U.S.C. 529)

§ 529. Advances of public moneys, prohibition against

No advance of public money shall be made in any case unless authorized by the appropriation concerned or other law. And in all cases of contracts for the performance of any service, or the delivery of articles of any description, for the use of the United States, payment shall not exceed the value of the service rendered, or of the articles delivered previously to such payment. It shall, however, be lawful, under the special direction of the President, to make such advances to the disbursing officers of the Government as may be necessary to the faithful and prompt discharge of their respective duties, and to the fulfillment of the public engagements. The President may also direct such advances as he may deem necessary and proper, to persons in the military and naval service employed on distant stations, where the discharge of the pay and emoluments to which they may be entitled cannot be regularly effected.

(40 U.S.C. 276a—276a–5; 276c)

276a. Rate of wages for laborers and mechanics

(a) The advertised specifications for every contract in excess of $2,000, to which the United States or the District of Columbia is a party, for construction, alteration, and/or repair, including painting and decorating, of public buildings or public works of the United States or the District of Columbia within the geographical limits of the States of the Union, or the District of Columbia, and which requires or involves the employment of mechanics and/or laborers shall contain a provision stating the minimum wages to be paid various classes of laborers and mechanics which shall be based upon the wages that will be determined by the Secretary of Labor to be prevailing for the corresponding classes of laborers and mechanics employed on corresponding classes of laborers and mechanics em-

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ployed on projects of a character similar to the contract work in the city, town, village, or other civil subdivision of the State, in which the work is to be performed, or in the District of Columbia if the work is to be performed there; and every contract based upon these specifications shall contain a stipulation that the contractor or his subcontractor shall pay all mechanics and laborers employed directly upon the site of the work, unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the advertised specifications, regardless of any contractual relationship which may be alleged to exist between the contractor or subcontractor and such laborers and mechanics, and that the scale of wages to be paid shall be posted by the contractor in a prominent and easily accessible place at the site of the work; and the further stipulation that there may be withheld from the contractor so much of accrued payments as may be considered necessary by the contracting officer to pay to laborers and mechanics employed by the contractor or any subcontractor on the work the difference between the rates of wages required by the contract to be paid laborers and mechanics on the work and the rates of wages received by such laborers and mechanics and not refunded to the contractor, subcontractors, or their agents.

(b) As used in sections 276a to 276a–5 of this title the term "wages", "scale of wages", "wage rates", "minimum wages", and "prevailing wages" shall include—

(1) the basic hourly rate of pay; and

(2) the amount of—

(A) the rate of contribution irrevocably made by a contractor or subcontractor to a trustee or to a third person pursuant to a fund, plan, or program; and

(B) the rate of costs to the contractor or subcontractor which may be reasonably anticipated in providing benefits to laborers and mechanics pursuant to all enforcible commitments to carry out a financially responsible plan or program which was communicated in writing to the laborers and mechanics affected,

for medical or hospital care, pensions on retirement or death, compensation for injuries or illness resulting from occupational activity, or insurance to provide any of the foregoing, for unemployment benefits, life insurance, disability and sickness insurance, or accident insurance, for vacation and holiday pay, for defraying costs of apprenticeship or other

similar programs, or for other bona fide fringe benefits, but only where the contractor or subcontractor is not required by other Federal, State, or local law to provide any of such benefits:

Provided, That the obligation of a contractor or subcontractor to make payment in accordance with the prevailing wage determinations of the Secretary of Labor, insofar as sections 276a to 276a–5 of this title and other Acts incorporating sections 276a to 276a–5 of this title by reference are concerned may be discharged by the making of payments in cash, by the making of contributions of a type referred to in paragraph (2)(A), or by the assumption of an enforcible commitment to bear the costs of a plan or program of a type referred to in paragraph (2)(B), or any combination thereof, where the aggregate

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of any such payments, contributions, and costs is not less than the rate of pay described in paragraph (1) plus the amount referred to in paragraph (2).

In determining the overtime pay to which the laborer or mechanic is entitled under any Federal law, his regular or basic hourly rate of pay (or other alternative rate upon which premium rate of overtime compensation is computed) shall be deemed to be the rate computed under paragraph (1), except that where the amount of payments, contributions, or costs incurred with respect to him exceeds the prevailing wage applicable to him under sections 276a to 276a–5 of this title, such regular or basic hourly rate of pay (or such other alternative rate) shall be arrived at by deducting from the amount of payments, contributions, or costs actually incurred with respect to him, the amount of contributions or costs of the types described in paragraph (2) actually incurred with respect to him, or the amount determined under paragraph (2) but not actually paid, whichever amount is the greater.

§ 276a–1. Termination of work on failure to pay agreed wages; completion of work by Government

Every contract within the scope of sections 276a to 276a–5 of this title shall contain the further provision that in the event it is found by the contracting officer that any laborer or mechanic employed by the contractor or any subcontractor directly on the site of the work covered by the contract has been or is being

paid a rate of wages less than the rate of wages required by the contract to be paid as aforesaid, the Government may, by written notice to the contractor, terminate his right to proceed with the work or such part of the work as to which there has been a failure to pay said required wages and to prosecute the work to completion by contract or otherwise, and the contractor and his sureties shall be liable to the Government for any excess costs occasioned the Government thereby.

§ 276a–2. Payment of wages by Comptroller General from withheld payments; listing contractors violating contracts

(a) The Comptroller General of the United States is authorized and directed to pay directly to laborers and mechanics from any accrued payments withheld under the terms of the contract any wages found to be due laborers and mechanics pursuant to sections 276a to 276a–5 of this title; and the Comptroller General of the United States is further authorized and is directed to distribute a list to all departments of the Government giving the name of persons or firms whom he has found to have disregarded their obligations to employees and subcontractors. No contract shall be awarded to the persons or firms appearing on this list or to any firm, corporation, partnership, or association in which such persons or firms have an interest until three years have elapsed from the date of publication of the list containing the names of such persons or firms.

(b) If the accrued payments withheld under the terms of the contract, as aforesaid, are insufficient to reimburse all the laborers and mechanics, with respect to whom there has been a failure to pay the wages required pursuant to sections 276a to 276a–5 of this title, such laborers and mechanics shall have the right of action and/or of intervention against the contractor and his sureties conferred by law upon persons furnishing labor or materials, and in such proceedings it shall

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be no defense that such laborers and mechanics accepted or agreed to accept less than the required rate of wages or voluntarily made refunds.

§ 276a–3. Effect on other Federal laws

Sections 276a to 276a–5 of this title shall not be construed to supersede or impair any authority otherwise granted by Federal law to provide for the establishment of specific wage rates.

§ 276a–4. Effective date of sections 276a to 276a–5

Sections 276a to 276a–5 of this title shall take effect thirty days after August 30, 1965, but shall not affect any contract then existing or any contract that may thereafter be entered into pursuant to invitations for bids that are outstanding on August 30, 1965.

§ 276a–5. Suspension of sections 276 to 276a–5 during emergency

In the event of a national emergency the President is authorized to suspend the provisions of sections 276a to 276a–5 of this title.

§ 276c. Regulations governing contractors and subcontractors

The Secretary of Labor shall make reasonable regulations for contractors and subcontractors engaged in the construction, prosecution, completion or repair of public buildings, public works or buildings or works financed in whole or in part by loans or grants from the United States, including a provision that each contractor and subcontractor shall furnish weekly a statement with respect to the wages paid each employee during the preceding week. Section 1001 of Title 18 shall apply to such statements.

(41 U.S.C. 5)

§ 5. Advertisements for proposals for purchases and contracts for supplies or services for Government departments; application to Government sales and contracts to sell and to Government Corporations

Unless otherwise provided in the appropriation concerned or other law, purchases and contracts for supplies or services for the Government may be made or entered into only after advertising a sufficient time previously for proposals, except (1) when the amount involved in any one case does not exceed $2,500, (2) when the public exigencies require the immediate delivery of the articles or performance of the service, (3) when only one source of supply is available and the Government purchasing or contracting officer shall so certify, or (4) when the services are required to be performed by the contractor in person and are (A) of a technical and professional nature or (B) under Government supervision and paid for on a time basis. Except (1) as authorized by section

1638 of Appendix to Title 50, (2) when otherwise authorized by law, or (3) when the reasonable value involved in any one case does not exceed $500, sales and contracts of sale by the Government shall be governed by the requirements of this section for advertising.

In the case of wholly owned Government corporations, this section shall apply to their administrative transactions only.

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SECTIONS 214, 301, 311, AND 314 OF THE PUBLIC HEALTH SERVICE ACT (42 U.S.C. 215, 241, 243, 246)

DETAIL OF PERSONNEL

SEC. 214. (a) The Secretary is authorized, upon request of the head of an executive department, to detail officers or employees of the Service to such department for duty as agreed upon by the Secretary and the head of such department in order to cooperate in, or conduct work related to, the functions of such department or of the Service. When officers or employees are so detailed their salaries and allowances may be paid from working funds established as provided by law or may be paid by the Service from applicable appropriation and reimbursement may be made as agreed upon by the Secretary and the head of the executive department concerned. Officers detailed for duty with the Army, Navy, or Coast Guard shall be subject to the laws for the government of the service to which detailed.

(b) Upon the request of any State health authority or, in the case of work relating to mental health, any State mental health authority, personnel of the Service may be detailed by the Surgeon General for the purpose of assisting such State or political subdivision thereof in work related to the functions of the Service.

(c) The Surgeon General may detail personnel of the Service to nonprofit educational, research, or other institutions engaged in health activities for special studies of scientific problems and for the dissemination of information relating to public health.

(d) Personnel detailed under subsections (b) and (c) shall be paid from applicable appropriations of the Service except that, in accordance with regulations such personnel may be placed on leave without pay and paid by the State, subdivision, or institution to which they are detailed. The services of personnel while detailed pursuant to this section shall be considered as having been

performed in the Service for purposes of the computation of basic pay, promotion, retirement, compensation for injury or death, and the benefits provided by section 212.

TITLE III—GENERAL POWERS AND DUTIES OF PUBLIC HEALTH SERVICE

PART A—RESEARCH AND INVESTIGATION

IN GENERAL

SECTION 301. The Surgeon General shall conduct in the Service, and encourage, cooperate with, and render assistance to other appropriate public authorities, scientific institutions, and scientists in the conduct of, and promote the coordination of, research, investigations, experiments, demonstrations, and studies relating to the causes, diagnosis, treatment, control, and prevention of physical and mental diseases and impairments of man, including water purification, sewage treatment, and pollution of lakes and streams. In carrying out the foregoing the Surgeon General is authorized to—

(a) Collect and make available through publications and other appropriate means, information as to, and the practical application of, such research and other activities;

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(b) Make available research facilities of the Service to appropriate public authorities, and to health officials and scientists engaged in special study;

(c) Establish and maintain research fellowships in the Service with such stipends and allowances, including traveling and subsistence expenses, as he may deem necessary to procure the assistance of the most brilliant and promising research fellows from the United States and abroad;

(d) Make grants-in-aid to universities, hospitals, laboratories, and other public or private institutions, and to individuals for such research or research training projects as are recommended by the National Advisory Health Council, or, with respect to cancer, recommended by the National Advisory Cancer Council, or, with respect to mental health, recommended by the National Advisory Mental Health Council, or with respect to heart diseases, recommended by the National Advisory Heart Council, or, with respect to dental

diseases and conditions, recommended by the National Advisory Dental Research Council, and include in the grants for any such project grants of penicillin and other antibiotic compounds for use in such projects; and make, upon recommendation of the National Advisory Health Council, grants-in-aid to public or nonprofit universities, hospitals, laboratories, and other institutions for the general support of their research and research training programs: *Provided,* That such uniform percentage, not to exceed 15 per centum, as the Surgeon General may determine, of the amounts provided for grants for research or research training projects for any fiscal year through the appropriations for the National Institutes of Health may be transferred from such appropriations to a separate account to be available for such research and research training program grants-in-aid for such fiscal year;

(e) Secure from time to time and for such periods as he deems advisable, the assistance and advice of experts, scholars, and consultants from the United States or abroad;

(f) For purposes of study, admit and treat at institutions, hospitals, and stations of the Service, persons not otherwise eligible for such treatment;

(g) Make available, to health officials, scientists, and appropriate public and other nonprofit institutions and organizations, technical advice and assistance on the application of statistical methods to experiments, studies, and surveys in health and medical fields; and

(h) Enter into contracts during the fiscal year ending June 30, 1966, and each of the two succeeding fiscal years, including contracts for research in accordance with and subject to the provisions of law applicable to contracts entered into by the military departments under title 10, United States Code, sections 2353 and 2354, except that determination, approval, and certification required thereby shall be by the Secretary of Health, Education, and Welfare; and

(i) Adopt, upon recommendation of the National Advisory Health Council, or, with respect to cancer, upon recommendation of the National Advisory Cancer Council, or with respect to mental health, upon recommendation of the National Advisory Mental Health Council, or, with respect to heart diseases, upon recommendation of the National Advisory

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Heart Council, or, with respect to dental diseases and conditions, upon recommendations of the National Advisory Dental Research Council, such additional means as he deems necessary or appropriate to carry out the purposes of this section.

PART B—FEDERAL-STATE COOPERATION

IN GENERAL

SEC. 311. (a) The Surgeon General is authorized to accept from State and local authorities any assistance in the enforcement of quarantine regulations made pursuant to this Act which such authorities may be able and willing to provide. The Surgeon General shall also assist States and their political subdivisions in the prevention and suppression of communicable diseases, shall cooperate with and aid State and local authorities in the enforcement of their quarantine and other health regulations and in carrying out the purposes specified in section 314, and shall advise the several States on matters relating to the preservation and improvement of the public health.

(b) The Surgeon General shall encourage cooperative activities between the States with respect to comprehensive and continuing planning as to their current and future health needs, the establishment and maintenance of adequate public health services, and otherwise carrying out the purposes of section 314. The Surgeon General is also authorized to train personnel for State and local health work.

GRANTS FOR COMPREHENSIVE HEALTH PLANNING AND PUBLIC HEALTH SERVICES

Grants to States for Comprehensive State Health Planning

SEC. 314. (a) (1) AUTHORIZATION.—In order to assist the States in comprehensive and continuing planning for their current and future health needs, the Surgeon General is authorized during the period beginning July 1, 1966, and ending June 30, 1968, to make grants to States which have submitted, and had approved by the Surgeon General, State plans for comprehensive State health planning. For the purposes of carrying out this subsection, there are hereby authorized to be appropriated $2,500,000 for the fiscal year ending June 30, 1967, and $5,000,000 for the fiscal year ending June 30, 1968.

(2) STATE PLANS FOR COMPREHENSIVE STATE HEALTH PLAN-

NING.—In order to be approved for purposes of this subsection, a State plan for comprehensive State health planning must—

(A) designate, or provide for the establishment of, a single State agency, which may be an interdepartmental agency, as the sole agency for administering or supervising the administration of the State's health planning functions under the plan;

(B) provide for the establishment of a State health planning council, which shall include representatives of State and local agencies and nongovernmental organizations and groups concerned with health, and of consumers of health services, to advise such State agency in carrying out its functions under the

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plan, and a majority of the membership of such council shall consist of representatives of consumers of health services;

(C) set forth policies and procedures for the expenditure of funds under the plan, which, in the judgment of the Surgeon General, are designed to provide for comprehensive State planning for health services (both public and private), including the facilities and persons required for the provision of such services, to meet the health needs of the people of the State;

(D) provide for encouraging cooperative efforts among governmental or nongovernmental agencies, organizations and groups concerned with health services, facilities, or manpower, and for cooperative efforts between such agencies, organizations, and groups and similar agencies, organizations, and groups in the fields of education, welfare, and rehabilitation;

(E) contain or be supported by assurances satisfactory to the Surgeon General that the funds paid under this subsection will be used to supplement and, to the extent practicable, to increase the level of funds that would otherwise be made available by the State for the purpose of comprehensive health planning and not to supplant such non-Federal funds;

(F) provide such methods of administration (including methods relating to the establishment and maintenance of personnel standards on a merit basis, except that the Surgeon General shall exercise no authority with respect to the selection, tenure of office, and compensation of any individual employed in accordance with such methods) as are found by

the Surgeon General to be necessary for the proper and efficient operation of the plan;

(G) provide that the State agency will make such reports, in such form and containing such information, as the Surgeon General may from time to time reasonably require, and will keep such records and afford such access thereto as the Surgeon General finds necessary to assure the correctness and verification of such reports;

(H) provide that the State agency will from time to time, but not less often than annually, review its State plan approved under this subsection and submit to the Surgeon General appropriate modifications thereof;

(I) provide for such fiscal control and fund accounting procedures as may be necessary to assure proper disbursement of and accounting for funds paid to the State under this subsection; and

(J) contain such additional information and assurances as the Surgeon General may find necessary to carry out the purposes of this subsection.

(3) (A) STATE ALLOTMENTS.—From the sums apropriated for such purpose for each fiscal year, the several States shall be entitled to allotments determined, in accordance with regulations, on the basis of the population and the per capita income of the respective States; except that no such allotment to any State for any fiscal year shall be less than 1 per centum of the sum appropriated for such fiscal year pursuant to paragraph (1). Any such allotment to a State for a fiscal year shall remain available for obligation by the State, in accordance with the provisions of this subsection and the State's plan approved thereunder, until the close of the succeeding fiscal year.

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(B) The amount of any allotment to a State under subparagraph (A) for any fiscal year which the Surgeon General determines will not be required by the State, during the period for which it is available, for the purposes for which allotted shall be available for reallotment by the Surgeon General from time to time, on such date or dates as he may fix, to other States with respect to which such a determination has not been made, in proportion to the original allotments to such States under subparagraph (A) for such fiscal year, but with such proportionate amount for any of such other States being reduced to the extent it exceeds the sum the Surgeon General estimates such State needs

and will be able to use during such period; and the total of such reductions shall be similarly reallotted among the States whose proportionate amounts were not so reduced. Any amount so reallotted to a State from funds appropriated pursuant to this subsection for a fiscal year shall be deemed part of its allotment under subparagraph (A) for such fiscal year.

(4) PAYMENTS TO STATES.—From each State's allotment for a fiscal year under this subsection, the State shall from time to time be paid the Federal share of the expenditures incurred during that year or the succeeding year pursuant to its State plan approved under this subsection. Such payments shall be made on the basis of estimates by the Surgeon General of the sums the State will need in order to perform the planning under its approved State plan under this subsection, but with such adjustments as may be necessary to take account of previously made underpayments or overpayments. The 'Federal share' for any State for purposes of this subsection shall be all, or such part as the Surgeon General may determine, of the cost of such planning.

Project Grants for Areawide Health Planning

(b) The Surgeon General is authorized, during the period beginning July 1, 1966, and ending June 30, 1968, to make, with the approval of the State agency administering or supervising the administration of the State plan approved under subsection (a), project grants to any other public or nonprofit private agency or organization to cover not to exceed 75 per centum of the costs of projects for developing (and from time to time revising) comprehensive regional, metropolitan area, or other local area plans for coordination of existing and planned health services, including the facilities and persons required for provision of such services; except that in the case of project grants made in any State prior to July 1, 1968, approval of such State agency shall be required only if such State has such a State plan in effect at the time of such grants. For the purposes of carrying out this subsection, there are hereby authorized to be appropriated $5,000,000 for the fiscal year ending June 30, 1967, and $7,500,000 for the fiscal year ending June 3, 1968.

Project Grants for Training, Studies, and Demonstrations

(c) The Surgeon General is also authorized, during the period beginning July 1, 1966, and ending June 30, 1968, to make grants

to any public or nonprofit private agency, institution, or other organization to cover all or any part of the cost of projects for training, studies,

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or demonstrations looking toward the development of improved or more effective comprehensive health planning throughout the Nation. For the purposes of carrying out this subsection, there are hereby authorized to be appropriated $1,500,000 for the fiscal year ending June 30, 1967, and $2,500,000 for the fiscal year ending June 30, 1968.

Grants for Comprehensive Public Health Services

(d) (1) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated $62,500,000 for the fiscal year ending June 30, 1968, to enable the Surgeon General to make grants to State health or mental health authorities to assist the States in establishing and maintaining adequate public health services, including the training of personnel for State and local health work. The sums so appropriated shall be used for making payments to States which have submitted, and had approved by the Surgeon General, State plans for provision of public health services.

(2) STATE PLANS FOR PROVISION OF PUBLIC HEALTH SERVICES.—In order to be approved under this subsection, a State plan for provision of public health services must—

(A) provide for administration or supervision of administration by the State health authority or, with respect to mental health services, the State mental health authority;

(B) set forth the policies and procedures to be followed in the expenditure of the funds paid under this subsection;

(C) contain or be supported by assurances satisfactory to the Surgeon General that (i) the funds paid to the State under this subsection will be used to make a significant contribution toward providing and strengthening public health services in the various political subdivisions in order to improve the health of the people; (ii) such funds will be made available to other public or nonprofit private agencies, institutions, and organizations, in accordance with criteria which the Surgeon General determines are designed to secure maximum participation of local, regional, or metropolitan agencies and groups in the provision of such services; and (iii) such funds will be used to supplement and, to the

extent practical, to increase the level of funds that would otherwise be made available for the purposes for which the Federal funds are provided and not to supplant such non-Federal funds;

(D) provide for the furnishing of public health services under the State plan in accordance with such plans as have been developed pursuant to subsection (a);

(E) provide that public health services furnished under the plan will be in accordance with standards prescribed by regulations, including standards as to the scope and quality of such services;

(F) provide such methods of administration (including methods relating to the establishment and maintenance of personnel standards on a merit basis, except that the Surgeon General shall exercise no authority with respect to the selection, tenure of office, and compensation of any individual employed in accordance with such methods) as are found by the Surgeon General to be necessary for the proper and efficient operation of the plan;

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(G) provide that the State health authority or, with respect to mental health services, the State mental health authority, will from time to time, but not less often than annually, review and evaluate its State plan approved under this subsection and submit to the Surgeon General appropriate modifications thereof;

(H) provide that the State health authority or, with respect to mental health services, the State mental health authority, will make such reports, in such form and containing such information, as the Surgeon General may from time to time reasonably require, and will keep such records and afford such access thereto as the Surgeon General finds necessary to assure the correctness and verification of such reports;

(I) provide for such fiscal control and fund accounting procedures as may be necessary to assure the proper disbursement of and accounting for funds paid to the State under this subsection; and

(J) contain such additional information and assurances as the Surgeon General may find necessary to carry out the purposes of this subsection.

(3) STATE ALLOTMENTS.—From the sums appropriated to carry

out the provisions of this subsection the several States shall be entitled for each fiscal year to allotments determined, in accordance with regulations, on the basis of the population and financial need of the respective States, except that no State's allotment shall be less for any year than the total amounts allotted to such State under formula grants for cancer control, plus other allotments under this section, for the fiscal year ending June 30, 1967.

(4) (A) PAYMENTS TO STATES.—From each State's allotment under this subsection for a fiscal year, the State shall be paid the Federal share of the expenditures incurred during such year under its State plan approved under this subsection. Such payments shall be made from time to time in advance on the basis of estimates by the Surgeon General of the sums the State will expend under the State plan, except that such adjustments as may be necessary shall be made on account of previously made underpayments or overpayments under this subsection.

(B) For the purpose of determining the Federal share for any State, expenditures by nonprofit private agencies, organizations, and groups shall, subject to such limitations and conditions as may be prescribed by regulations, be regarded as expenditures by such State or a political subdivision thereof.

(5) FEDERAL SHARE.—The "Federal share" for any State for purposes of this subsection shall be 100 per centum less that percentage whcih bears the same ratio to 50 per centum as the per capita income of such State bears to the per capita income of the United States; except that in no case shall such percentage be less than 33⅓ per centum or more than 66⅔ per centum, and except that the Federal share for the Commonwealth of Puerto Rico, Guam, American Samoa, and the Virgin Islands shall be 66⅔ per centum.

(6) DETERMINATION OF FEDERAL SHARES.—The Federal shares shall be determined by the Surgeon General between July 1 and September 1 of each year, on the basis of the average per capita incomes of each of the States and of the United States for the most recent year for which satisfactory data are available from the Department of Commerce,

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and such determination shall be conclusive for the fiscal year beginning on the next July 1. The populations of the several States shall be determined on the basis of the latest figures for the population of the several States available from the Department of Commerce.

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(7) ALLOCATION OF FUNDS WITHIN THE STATES.—At least 15 per centum of a State's allotment under this subsection shall be available only to the State mental health authority for the provision under the State plan of mental health services.

Project Grants for Health Services Development

(e) There are authorized to be appropriated $62,500,000 for the fiscal year ending June 30, 1968, for grants to any public or nonprofit private agency, institution, or organization to cover part of the cost of (1) providing services to meet health needs of limited geographic scope or of specialized regional or national significance, (2) stimulating and supporting for an initial period new programs of health services, or (3) undertaking studies, demonstrations, or training designed to develop new methods or improve existing methods of providing health services. Such grants may be made pursuant to clause (1) or (2) of the preceding sentence with respect to projects involving the furnishing of public health services only if such services are provided in accordance with such plans as have been developed pursuant to subsection (a).

Interchange of Personnel With States

(f) (1) For the purposes of this subsection, the term "State" means a State or a political subdivision of a State, or any agency of either of the foregoing engaged in any activities related to health or designated or established pursuant to subparagraph (A) of paragraph (2) of subsection (a); the term "Secretary" means (except when used in paragraph (3) (D)) the Secretary of Health, Education, and Welfare; and the term 'Department' means the Department of Health, Education, and Welfare.

(2) The Secretary is authorized, through agreements or otherwise, to arrange for assignment of officers and employees of States to the Department and assignment to States of officers and employees in the Department engaged in work related to health, for work which the Secretary determines will aid the Department in more effective discharge of its responsibilities in the field of health as authorized by law, including cooperation with States and the provision of technical or other assistance. The period of assignment of any officer or employee under an arrangement shall not exceed two years.

(3) (A) Officers and employees in the Department assigned to any State pursuant to this subsection shall be considered, during

such assignment, to be (i) on detail to a regular work assignment in the Department, or (ii) on leave without pay from their positions in the Department.

(B) Persons considered to be so detailed shall remain as officers or employees, as the case may be, in the Department for all purposes except that the supervision of their duties during the period of detail may be governed by agreement between the Department and the State involved.

(C) In the case of persons so assigned and on leave without pay—

(i) if the rate of compensation (including allowances) for

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their employment by the State is less than the rate of compensation (including allowances) they would be receiving had they continued in their regular assignment in the Department, they may receive supplemental salary payments from the Department in the amount considered by the Secretary to be justified, but not at a rate in excess of the difference between the State rate and the Department rate; and

(ii) they may be granted annual leave and sick leave to the extent authorized by law, but only in circumstances considered by the Secretary to justify approval of such leave.

Such officers and employees on leave without pay shall, notwithstanding any other provision of law, be entitled—

(iii) to continuation of their insurance under the Federal Employees' Group Life Insurance Act of 1954, and coverage under the Federal Employees Health Benefits Act of 1959, so long as the Department continues to collect the employees' contribution from the officer or employee involved and to transmit for timely deposit into the funds created under such Acts the amount of the employee's contributions and the Government's contribution from appropriations of the Department; and

(iv) (I) in the case of commissioned officers of the Service, to have their service during their assignment treated as provided in section 214(d) for such officers on leave without pay, or (II) in the case of other officers and employees in the Department, to credit the period of their assignment under the arrangement under this subsection toward periodic or longevity step increases and for retention and leave accrual purposes, and, upon payment into the civil service retirement and disability fund of the percentage of their

State salary, and on their supplemental salary payments, if any, which would have been deducted from a like Federal salary for the period of such assignment and payment by the Secretary into such fund of the amount which would have been payable by him during the period of such assignment with respect to a like Federal salary, to treat (notwithstanding the provisions of the Independent Offices Appropriation Act, 1959, under the head "Civil Service Retirement and Disability Fund") their service during such period as service within the meaning of the Civil Service Retirement Act;

except that no officer or employee or his beneficiary may receive any benefits under the Civil Service Retirement Act, the Federal Employees Health Benefits Act of 1959, or the Federal Employees' Group Life Insurance Act of 1954, based on service during an assignment hereunder for which the officer or employee or (if he dies without making such election) his beneficiary elects to receive benefits, under any State retirement or insurance law or program, which the Civil Service Commission determines to be similar. The Department shall deposit currently in the funds created under the Federal Employees' Group Life Insurance Act of 1954, the Federal Employees Health Benefits Act of 1959, and the civil service retirement and disability fund, respectively, the amount of the Government's contribution under these Acts on account of service with respect to which employee contributions are collected as provided in subparagraph (iii) and the amount of the Government's contribution under the Civil Service Retirement Act on account of service with respect to which payments

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(of the amount which would have been deducted under that Act) referred to in subparagraph (iv) are made to such civil service retirement and disability fund.

(D) Any such officer or employee on leave without pay (other than a commissioned officer of the Service) who suffers disability or death as a result of personal injury sustained while in the performance of his duty during an assignment hereunder, shall be treated, for the purposes of the Federal Employees' Compensation Act, as though he were an employee, as defined in such Act, who had sustained such injury in the performance of duty. When such person (or his dependents, in case of death) entitled by reason of injury or death to benefits under that Act is also entitled to benefits from a State for the same injury or death, he (or his

dependents in case of death) shall elect which benefits he will receive. Such election shall be made within one year after the injury or death, or such further time as the Secretary of Labor may for good cause allow, and when made shall be irrevocable unless otherwise provided by law.

(4) Assignment of any officer or employee in the Department to a State under this subsection may be made with or without reimbursement by the State for the compensation (or supplemen- from the place of assignment), and allowances, or any part thereof, of such officer or employee during the period of assignment, and any such reimbursement shall be credited to the appropriation utilized for paying such compensation, travel or transportation expenses, or allowances.

(5) Appropriations to the Department shall be available, in accordance with the standardized Government travel regulations or, with respect to commissioned officers of the Service, the joint travel regulations, the expenses of travel of officers and employees assigned to States under an arrangement under this subsection on either a detail or leave-without-pay basis and, in accordance with applicable law, orders, and regulations, for expenses of transportation of their immediate families and expenses of transportation of their household goods and personal effects, in connection with the travel of such officers and employees to the location of their posts of assignment and their return to their official stations.

(6) Officers and employees of States who are assigned to the Department under an arrangement under this subsection may (A) be given appointments in the Department covering the periods of such assignments, or (B) be considered to be on detail to the Department. Appointments of persons so assigned may be made without regard to the civil service laws. Persons so appointed in the Department shall be paid at rates of compensation determined in accordance with the Classification Act of 1949, and shall not be considered to be officers or employees of the Service for the purposes of (A) the Civil Service Retirement Act, (B) the Federal Employees' Group Life Insurance Act of 1954, or (C) unless their appointments result in the loss of coverage in a group health benefits plan whose premium has been paid in whole or in part by a State contribution, the Federal Employees Health Benefits Act of 1959. State officers and employees who are assigned to the Department without appointment shall not be considered to be officers or employees of the Department, except

as provided in subsection (7), nor shall they be paid a salary or wage by the Service during the period of their assignment. The supervision of the

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duties of such persons during the assignment may be governed by agreement between the Secretary and the State involved.

(7) (A) Any State officer or employee who is assigned to the Department without appointment shall nevertheless be subject to the provisions of sections 203, 205, 207, 208, and 209 of title 18 of the United States Code.

(B) Any State officer or employee who is given an appointment while assigned to the Department, or who is assigned to the Department without appointment, under an arrangement under this subsection, and who suffers disability or death as a result of personal injury sustained while in the performance of his duty during such assignment shall be treated, for the purpose of the Federal Employees' Compensation Act, as though he were an employee, as defined in such Act, who had sustained such injury in the performance of duty. When such person (or his dependents, in case of death) entitled by reason of injury or death to benefits under that Act is also entitled to benefits from a State for the same injury or death, he (or his dependents, in case of death) shall elect which benefits he will receive. Such election shall be made within one year after the injury or death, or such further time as the Secretary of Labor may for good cause allow, and when made shall be irrevocable unless otherwise provided by law.

(8) The appropriations to the Department shall be available, in accordance with the standardized Government travel regulations, during the period of assignment and in the case of travel to and from their places of assignment or appointment, for the payment of expenses of travel of persons assigned to, or given appointments by, the Service under an arrangement under this subsection.

(9) All arrangements under this subsection for assignment of officers or employees in the Department to States or for assignment of officers or employees of States to the Department shall be made in accordance with regulations of the Secretary.

General

(g) (1) All regulations and amendments thereto with respect to grants to States under subsection (a) shall be made after con-

sultation with a conference of the State health planning agencies designated or established pursuant to subparagraph (A) of paragraph (2) of subsection (a). All regulations and amendments thereto with respect to grants to States under subsection (d) shall be made after consultation with a conference of State health authorities and, in the case of regulations and amendments which relate to or in any way affect grants for services or other activities in the field of mental health, the State mental health authorities. Insofar as practicable, the Surgeon General shall obtain the agreement, prior to the issuance of such regulations or amendments, of the State authorities or agencies with whom such consultation is required.

(2) The Surgeon General, at the request of any recipient of a grant under this section, may reduce the payments to such recipient by the fair market value of any equipment or supplies furnished to such recipient and by the amount of the pay, allowances, traveling expenses, and any other costs in connection with the detail of an officer or employee to the recipient when such furnishing or such detail, as the case may be, is for the convenience of and at the request of such

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recipient and for the purpose of carrying out the State plan or the project with respect to which the grant under this section is made. The amount by which such payments are so reduced shall for purposes of determining the Federal share under subsection (a) or (d), be deemed to have been paid to the State.

(3) Whenever the Surgeon General, after reasonable notice and opportunity for hearing to the health authority or, where appropriate, the mental health authority of a State or a State health planning agency designated or established pursuant to subparagraph (A) of paragraph (2) of subsection (a), finds that, with respect to money paid to the State out of appropriations under subsection (a) or (d), there is a failure to comply substantially with either—

(A) the applicable provisions of this section;

(B) the State plan submitted under such subsection; or

(C) applicable regulations under this section;

the Surgeon General shall notify such State health authority, mental health authority, or health planning agency, as the case may be, that further payments will not be made to the State from appropriations under such subsection (or in his discretion that further payments will not be made to the State from such

appropriations for activities in which there is such failure), until he is satisfied that there will no longer be such failure. Until he is so satisfied, the Surgeon General shall make no payment to such State from appropriations under such subsection, or shall limit payment to activities in which there is no such failure.

(4) For the purpose of this section—

(A) The term "nonprofit" as applied to any private agency, institution, or organization means one which is a corporation or association, or is owned and operated by one or more corporations or associations, no part of the net earnings of which inures, or may lawfully inure, to the benefit of any private shareholder or individual; and

(B) The term "State" includes the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, and the District of Columbia and the term "United States" means the fifty States and the District of Columbia.

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SEPARATE VIEWS OF MESSRS. JOHN E. MOSS AND LIONEL VAN DEERLIN ON S. 780, THE AIR QUALITY ACT OF 1967

While we believe that most of the actions taken by the committee tend to strengthen the proposed Air Quality Act, we disagree completely with the decision to eliminate the auto emission waiver provision for California.

Under the bill's section 208(b), as amended by the committee, California would have to persuade the Secretary of Health, Education, and Welfare to prescribe standards for California that were more stringent than the national standards. Even if he agreed California needed tougher regulations, the Secretary would retain administrative control over the program in that State.

As approved by the Senate, section 208(b) in effect would exempt California from the bill's requirement that States conform to the Federal auto emission standards. The burden would be on the Secretary to show why California, which already has a successful antipollution law of its own, should not be allowed to go beyond the Federal limitations in adopting and enforcing its own standards.

We feel the Senate provision makes sense. It is consistent with

the preamble of the bill which states, in section 101(a)(3), that "the prevention and control of air pollution at its source is the primary responsibility of States and local governments."

Are we now to tell California that we don't quite trust her to run her own program, that big government should do it instead?

A look at the record should be enough to convince anyone of California's need for this exemption—and of the State's proven capabilities in the fight against smog.

As the prime victim of auto-caused air pollution, California has led the Nation in promulgating strict emission control requirements.

Since 1966, all new passenger cars and light trucks built for sale in California have been equipped to control hydrocarbon and carbon monoxide emissions from both the crankcase ventilation system and from the engine exhaust. The devices now in use each day are keeping 550,000 gallons of unburned gasoline and 2,300 tons of carbon monoxide from seeping into the air Californians breathe. Of the more than 11 million vehicles in the State, 7.8 million have crankcase controls, and 1.8 million have exhaust controls.

California has been a model for the Nation in this critical field. In fact, the new Federal standards for emission control are the same as those now in force in California. The difficulty is that California, with its compelling and extraordinary problems, will require even tougher controls in the near future.

The current standard of 275 parts per million (p.p.m.) of hydrocarbons, for example, is scheduled to be dropped to 180 p.p.m. in 1970. By 1975, this standard may have to be further reduced to 100 p.p.m.

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These figures are not the whim of bureaucratic minds; they are dictated by harsh reality. Motor vehicles are responsible for about 90 percent of the smog in Los Angeles County, some 56 percent in the San Francisco Bay area, and about 50 percent in San Diego. Moreover, with 17 percent of the industry's sales concentrated there, California's burgeoning car population is increasing at the rate of 1,800 to 2,000 a day.

The auto industry has shown itself willing and able to make the modifications required for its lucrative California market. And we suspect the industry would be only too happy to comply with the special requirements of any foreign nation that accounted for as many sales as California. The objections of the auto manu-

facturers to the Senate-approved waiver provision, therefore, leave us distinctly unimpressed.

In short, unique local conditions virtually demand that California retain strict and hopefully total control over all efforts to reduce emissions within her boundaries.

JOHN E. MOSS
LIONEL VAN DEERLIN

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1.1h(3) COMMITTEE OF CONFERENCE

H.R. REP. No. 916, 90th Cong., 1st Sess. (1967)

CLEAN AIR ACT

NOVEMBER 13, 1967.—Ordered to be printed

Mr. STAGGERS, from the committee of conference, submitted the following

CONFERENCE REPORT

[To accompany S. 780]

The committee of conference on the disagreeing votes of the two Houses on the amendment of the House to the bill (S. 780) to amend the Clean Air Act to authorize planning grants to air pollution control agencies, expand research provisions relating to fuels and vehicles, provide for interstate air pollution control agencies or commissions, authorize the estabishment of air quality standards, and for other purposes, having met, after full and free conference, have agreed to recommend and do recommend to their respective Houses as follows:

That the Senate recede from its disagreement to the amendment of the House and agree to the same with an amendment as follows:

In lieu of the matter proposed to be inserted by the House amendment insert the following: *That this Act may be cited as the "Air Quality Act of 1967".*

* * * * * * *

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STATEMENT OF THE MANAGERS ON THE PART OF THE HOUSE

The managers on the part of the House at the conference on the disagreeing votes of the two Houses on the amendment of the House to the bill (S. 780) to amend the Clean Air Act to authorize planning grants to air pollution control agencies, expand research provisions relating to fuels and vehicles, provide for interstate air pollution control agencies or commissions, authorize the establishment of air quality standards, and for other purposes, submit the following statement in explanation of the effect of the action agreed upon by the conferees and recommended in the accompanying conference report:

The House amendment strikes out all of the Senate bill after the enacting clause and inserts a substitute. The Senate recedes from its disagreement to the amendment of the House, with an amendment which is a substitute for both the Senate bill and the House amendment. The differences between the House amendment and the substitute agreed to in conference are noted in the following outline, except for technical, clerical, conforming, and clarifying changes.

APPROPRIATION AUTHORIZATIONS

The bill as passed by the Senate authorized appropriations totaling $700 million over a 3-year period, fiscal years 1968 through 1970. The House amendment provided authorizations totaling $428.3 million over the same period. The conference substitute provides the same total authorization as is contained in the House amendment, $428.3 million, but revises the amounts for each of the fiscal years concerned.

The Senate bill authorizes a total of $375 million for research into combustion byproducts of vehicles, with $100 million for fiscal 1968, $125 million for fiscal 1969, and $150 million for fiscal 1970. The House bill contained no authorization specifically earmarked for this program. The conference substitute authorizes $35 million for fiscal 1968 for this program, and $90 million for fiscal 1969, with no authorization for fiscal 1970.

For general operating expenses, other than for research into combustion byproducts, and for facilities construction, the bill as passed by the Senate authorized a total of $325 million, with $75 million authorized for fiscal 1968, $100 million for fiscal 1969, and $150 million for fiscal 1970. The House amendment authorized

a total of $428.3 million for all purposes under the act, other than facilities construction, for the same 3 fiscal years, with $99 million authorized for fiscal 1968, $145 million for fiscal 1969, and $184.3 million for fiscal 1970.

The conference substitute authorizes appropriations for the same 3 fiscal years for activities under the act, other than funds specifically earmarked for combustion byproducts and facilities construction, a total of $303.3 million, with $74 million authorized for fiscal 1968, $95 million for fiscal 1969, and $134.3 million for fiscal 1970.

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COMBUSTION BYPRODUCTS RESEARCH

The Senate bill contained a separate section 104 providing specific authorization for research into combustion byproducts of fuels, authorizing the grants and contracts for such research with public or private organizations and institutions, and authorizing specific amounts for this purpose over the 3-year period, fiscal 1968 through 1970. The House amendment contained no specific authorization for this program, but would have permitted such research, in the amounts determined by the administration, out of the overall appropriation authorization contained in the amendment.

The conference substitute follows the Senate version, with modifications. The conference substitute provides a separate section authorizing research into combustion byproducts of fuels, but eliminates the portion of the Senate bill which would have authorized grants to private profitmaking organizations. Because of the elimination of private profitmaking organizations from participating in the grant program contained in the bill, the conferees agreed to the deletion of the provision contained in the Senate bill restricting grants to not to exceed three-fourths of the cost of projects.

As agreed to by the conferees, the new program of specific earmarking of research funds contained in the Senate bill is limited to 2 years by the conference substitute rather than 3 years as contained in the Senate bill, and limits the authorization for this program to a total of $125 million for fiscal 1968 and 1969, rather than $375 million for 3 years as authorized by the Senate.

FUEL ADDITIVES

The Senate bill provided for the registration of fuels containing additives and required the filing of information concerning additives contained in such fuel. The House version limited the requirements with respect to registration to the additives involved, and provided that the Secretary should make provisions with respect to such additives as in his judgment is necessary to protect trade secrets and is necessary in the interest of national security.

The conference agreement provides that the manufacturer of fuels is required to notify the Secretary as to the name, the range of concentration, and the purpose in use of any additive contained in any fuel delivered in interstate commerce. The additive manufacturer is required to register the additive and to furnish information as to chemical composition, recommended range of concentration, recommended purpose in use, and, where available, the chemical structure of such additive. The conference agreement follows the language of the Senate bill with respect to protection of trade secrets, except that information relating to trade secrets may be disclosed only in proceedings under title II of the act relating to motor fuel emissions, rather than in all proceedings under the act.

The House conferees feel that the language of the conference agreement with respect to protection of trade secrets, and with respect to registration of fuel additives, are adequate to protect against disclosure of any information which might adversely affect the national security, and cannot be construed to require that the Secretary may require that research be conducted by the manufacturer of such

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additive relating to health or other effects of such additive as a prerequisite to registration.

AIR QUALITY CONTROL REGIONS; HEARING BOARDS

The House bill provided that air quality control regions must be designated by the Secretary within 18 months after the date of enactment of the bill. The conference substitute provides that, to the extent feasible, such regions must be established within 18 months, but authorizes the revision of any prior designation, or the establishment of additional regions, after the expiration of such 18 months to the extent the Secretary determines such

revision or designation to be necessary to protect the public health and welfare. Such revision or designation may take place only after consultation with appropriate city and local authorities. It is expected that the revision of designated air quality control regions will take place only where necessary to meet changing circumstances, in order to minimize the impact of such revisions on State and local authorities and industries within or outside the designated regions.

The House bill provided that where a State requests a hearing upon air quality standards prescribed by the Secretary in those cases where State action has not provided within the time specified in the act for such air quality standards, the findings of the hearing board must be issued within 90 days, unless the Secretary determines that a longer period is necessary. The conference substitute follows the language of the House amendment, but provides that the 90-day period may not be extended by the Secretary for more than an additional 3 months.

INTERSTATE COMPACTS

The House amendment proposed to delete a provision of existing law encouraging States to enter into compacts for the control of air pollution, stating that no such compact should become effective until ratified by the Congress. This provision was deleted in the House amendment on the theory that it was unnecessary; however, a number of questions were raised concerning the possible implications of action by the Congress in repealing this section. The managers on the part of the House therefore agreed to reinsert this language into the bill in section 102(c), so that with respect to this language, the substitute restates existing law. The conferees also agreed to the retention of the provision contained in the House amendment stating it to be the intent of the Congress that agreements or compacts hereafter entered into relating to the control and abatement of air pollution in air quality control regions should not provide for participation by States not included (in whole or in part) in such region.

HARLEY O. STAGGERS,
JOHN JARMAN,
PAUL G. ROGERS,
WILLIAM L. SPRINGER,
ANCHER NELSEN,
Managers on the Part of the House.

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1.1h(4) CONGRESSIONAL RECORD, VOL. 113 (1967)

1.1h(4)(a) July 18: Considered and passed Senate, pp. 19164; 19171–19186

AIR QUALITY ACT OF 1967

Mr. MUSKIE. Mr. President, I ask unanimous consent that the Senate proceed to the consideration of Calendar No. 390, S. 780, the Air Quality Act of 1967.

The PRESIDING OFFICER. The bill will be stated by title.

The LEGISLATIVE CLERK. A bill (S. 780) to amend the Clean Air Act to improve and expand the authority to conduct or assist research relating to air pollutants, to assist in the establishment of regional air quality commissions, to authorize establishment of standards applicable to emissions from establishments engaged in certain types of industry, to assist in establishment and maintenance of State programs for annual inspection of automobile emission control devices and for other purposes.

* * * * *

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Mr. MUSKIE. Mr. President, the Senate has demonstrated its recognition of air pollution as a serious national problem. Beginning with the Clean Air Act of 1963 the Senate has given unanimous approval to legislation designed to expand Federal support for the battle to preserve the quality of our air resources.

We realize there are no panaceas, no overnight cures for the complex problems of air pollution, but we are pledged to protect the health and welfare of every citizen of this Nation whether that person be healthy, or suffering from a bronchial disorder.

Mr. President, there is an abundance of compelling evidence to indicate that air pollution is a hazard to health. There is more compelling evidence to indicate that the public welfare is adversely affected by indiscriminate pumping of waste into the air. we know this as individuals who have experienced discomfort from foul odors, had our eyes burn from smog or looked at the color of a white shirt after a day in any of our industrial cities.

At the same time popular concern for air pollution control has risen dramatically as the result of increased leisure time, greater publicity, increased awareness of health problems and a variety of other reasons. There is a demand for action, and all the evidence received by the Public Works Committee this year in 18 days of hearings, in consultations and in research supports that demand.

Mr. President, S. 780, as amended by the committee, is complex, as are the problems of environmental control. The problem of air pollution is neither local nor temporary. It is a universal problem, and, so long as our standard of living continues to increase, it will be a permanent threat to human well-being.

The committee's recommendations provide far-reaching opportunities for a comprehensive, broad-based attack on the Nation's air pollution problem while expanding the potential of control technology and identifying the health and welfare effects of air pollution. The objective of S. 780 is the enhancement of air quality and the reduction of harmful emissions consistent with maximum utilization of an expanding capacity to deal with them effectively. At the same time, it provides authority to abate any pollution source which is an imminent danger to health, by whatever means necessary.

The Air Quality Act of 1967, therefore, serves notice that no one has the right to use the atmosphere as a garbage dump, and that there will be no haven for polluters anywhere in the country.

The committee believes that, to date, public and private efforts to accomplish air quality objectives have been inadequate. Research has been insufficient, with little significant development of new and improved methods for controlling or eliminating air pollution. As each day passes there is a greater urgency for closer cooperation between government and industry in an effort to make substantial inroads on air pollution control and abatement.

I would like to point out, for clarification, that the bill as reported by the committee is the entire Clean Air Act as amended by this year's action. Because the amendments are complex and because they recast the force and effect of the Federal air pollution control effort the committee thought it wise to present to the Senate a complete act containing both the amendments and previously adopted language which was not changed. The Cordon print beginning on page 63 of the report indicates the changes in existing law.

In order to facilitate the objective of a national abatement program which will enhance the quality of our Nation's air, the proposed amendments to the Clean Air Act provide the Secretary of Health, Education, and Welfare with the following authority:

First. To request an immediate injunction to abate the emission of contaminants which present "an imminent and substantial endangerment to the health of persons," anywhere in the country;

Second. To designate "air quality control regions" for the purpose of implementing air quality standards, whenever and wherever he deems it necessary to protect the public health and welfare.

Third. In the absence of effective State action in accordance with the provisions of the act, to establish ambient air quality standards for such regions.

Fourth. In the absence of effective State action in accordance with the provisions of the act, to enforce such standards.

Fifth. In the absence of action by the affected States, to establish Federal interstate air quality planning commissions.

It should be emphasized that it is the intent of the committee to enhance air quality and to reduce harmful pollution emissions anywhere in the country, and to give the Secretary authority to implement that objective in the absence of effective State and local control. It is believed that the Air Quality Act of 1967 carries out that intent.

The committee recognizes the potentional economic impact, and therefore economic risk, associated with major social legislative measures of this type. But this risk was assumed when the Congress enacted social security, fair labor standards, and a host of other legislation designed to protect the public welfare. Such a risk must again be assumed if the Nation's air resources are to be conserved, and enhanced to the point that generations yet to come will be able to breathe without fear of impairment of health.

S. 780 is a logical expansion of the Clean Air Act of 1963 as amended. In the basic act the Congress provided for development by the Public Health Service of "air quality criteria" to identify the effects of pollutants on health and welfare. To date, one such set of criteria relating to oxides of sulfur has been issued and the com-

mittee understands that criteria on several other contaminants including carbon monoxide, particulates and oxidants will be released within the next 6 months.

The committee recognizes this activity and has encouraged its expansion under S. 780. In addition to continuing the analysis of the quantitative and the qualitative effects of air pollution under strengthened and refined procedures of evaluation, the committee bill authorizes two new areas of activity. A first and important step will be the identification of those areas of the Nation which have significant air pollution problems. The designation by the Secretary of these problem areas will trigger the setting of air quality standards related to those pollutants for which criteria have been developed.

In concert with expanded criteria development will be the compilation of information of methods of pollution control, which will be a publication of the technology and economically feasible methods of control of pollutants subject to criteria. This information will be designed to assist the States in carrying out their responsibility to control air pollution within their respective boundaries.

These three steps, designation of air quality control regions, criteria development, and publication of control technology information are the tools for development of air quality standards and an early warning system to those industries and others in problem areas who will be required to control their emissions.

The committee does not suggest that, with one fell swoop, the air pollution problems of the Nation will be solved. De-

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velopment of the above-mentioned information will require a time equivalent to that considered in the initial administration proposal for uniform national emission standards. And after the information is available and the States adopt standards, there will be the necessary time to achieve desired emissions control.

But we will have a national program of air quality. The States will retain the primary responsibility to determine the quality of air they desire. In no event, however, will the Federal Government approve any air quality standard or plan for implementation of that standard which does not provide for protection of the public health and welfare of all citizens within the air quality region.

Moreover, in the absence of effective State action the bill gives the Secretary of Health, Education, and Welfare the authority to set standards in such regions.

In addition, new industries, wherever they locate, will know that control is inevitable and plan for it. The fact that an area is not now a problem area will not mean that controls will never be required. When the air quality of any region deteriorates below the level required to protect public health and welfare, the Secretary is required to designate that region for the establishment of air quality standards, enforceable by the Federal Government if the States fail to act. It should be pointed out in this connection that the Public Health Service has expressed the view that every urban area of 50,000 or more population now has an air pollution problem. There are also population areas under that size which yearly have problems related to particular pollution sources and conditions.

Considerable attention was given, in the hearings and also in informal conferences and executive sessions, to the concept of national emission standards. Such standards were urged by the administration first, as a

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means of eliminating the economic disadvantage of complying with air pollution controls as a local requirement and the temptation for industry to leave or avoid areas where such controls are presently necessary; and, second, on the ground that some industries, by their nature, are a danger to health and welfare wherever they are located.

In the judgment of the committee, these arguments were offset by the following considerations:

First. The administration itself did not propose uniform national emission standards but rather minimal national standards. Clearly, therefore, there would be local variations which would not eliminate economic disadantages. Dr. John T. Middleton, Director, National Center for Air Pollution Control, Health, Education, and Welfare, said:

> Our intention is to get minimum national standards to help insure that no single pollution source would, in itself, be a threat to public health and welfare. These standards should be based on scientific criteria of the effects of air pollutants on man, animals, vegetation and the air resources itself. The criteria we would use would be those which were authorized to publish under the provisions of the Clean Air Act (p. 1153).

He said later:

> The setting of such standards at the Federal level would not relieve States and communities of the responsibility of insuring that pollution sources located within their jurisdictions are controlled to the full extent necessary. States could adopt emission standards more stringent than those set at the Federal level (p. 1155).

Second. Administration witnesses testified that PHS has made no findings with respect to industries which, in and of themselves, constitute a danger to public health and welfare.

Third. Under the bill approved by the committee, the Secretary's authority has been extended so that he can deal effectively with any situation which, by its nature, is a danger to health and welfare, in any location.

Fourth. National emission standards would eliminate some control options —relocation of pollution sources, fuel substitutes, and so forth—which may be essential in serious problem areas in the absence of effective technology.

Fifth. Wise use of capital resources dictates that the first priority for the pollution control dollar is in those areas where the problem is most critical. National emission standards would give equal priority to critical areas and areas where no problem presently exists.

Sixth. The program authorized in the committee bill will lead to control of the industries described on a national basis, with the kind of local variations envisioned by administration witnesses.

Seventh. The difficulty in areas which have an air pollution problem is that the quality of the ambient air has deteriorated below the level consistent with the protection of health and welfare. National emission standards would relate to that problem only to the extent that "national" polluters happened to be located in the problem area. Other sources would not be touched by such standards. Such standards do not, therefore, represent a comprehensive attack on the problem of ambient air quality. The committee has chosen to deal with the problem of ambient air quality directly and to provide authority designed to improve it.

The committee does recognize the need for national action on sources of pollution which move in interstate commerce. For the purpose of further consideration of national emission standards, for moving and stationary sources, the committee bill directs the Secretary to undertake a 2-year study of the concept and the full range of its implications.

Basic to any understanding of what the committee has done is comprehension of the concept of air quality

criteria and standards. Dr. John Middleton, Director of the National Center for Air Pollution Control, provided the committee with an excellent definition of the difference between standards and criteria:

> Air quality criteria are descriptive—that is, they describe the effects that can be expected to occur whenever and wherever the ambient air level of a pollutant reaches or exceeds a specific figure for a specific time period. Air quality standards are prescriptive—they prescribe pollutant levels that cannot legally be exceeded during a specific time period in a specific geographic area. Ideally, the area should be the entire region that shares a common air supply and thus shares the impact of pollution from all sources in the region.

Criteria then become the essential first function of any standards setting procedure whether those standards are on quality or emission. The latter point is verified in my earlier discussion of national emission standards.

Without criteria, any air quality program would be without scientific basis or rationale. Therefore, it is important that any criteria developed accurately reflect the best available information of the effects of pollutants on health or welfare.

Because of this requirement and a general feeling that the criteria presently available can be improved the committee has included language which directs the Secretary to reevaluate all criteria issued precedent to enactment of this act in accordance with the new provisions and, if necessary, to reissue those criteria.

It is expected that those criteria presently nearing completion will be issued only after careful consideration of the directives contained in section 107(b). Early consideration of these directives, even though this legislation may still be pending, will mitigate against unnecessary modification or reissuance of such criteria. Active reconsideration of those criteria already issued, without awaiting final congressional action, could facilitate the effectiveness of this legislation.

The committee also strongly urges the Secretary to move as quickly as practicable to develop information required by section 107(c). Recommended control techniques are essential to the establishment of meaningful air quality standards and therefore should be made available to the States and local government as soon as possible giving due consideration to the need for developing the best available information.

The committee has purposely not required a specific order for release of criteria and control techniques. While requiring that both be available to a Governor before a standard setting procedure can be triggered, it is recognized that these scientific and technical documents are more than just the tools for a standard setting procedure.

Criteria and recommended control requirements are advance warnings to industries or other sources of contamination of what will be expected of them. On the basis of any criteria issued, an industry can begin to analyze its pollution problem and plan to meet its responsibility. After receiving the latest and best information on control techniques and alternatives, an industry can begin to plan its control program. Both of these activities will facilitate achievement of ambient air quality standards at such time as those standards are established.

The committee recognized that criteria of ambient air quality which define health and welfare effects of air pollution do not and should not take into consideration the technological and economic feasibility of achieving such air quality. It is further recognized that existing control technology is not ade-

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quate in many areas; however, the best available control methods must

be implemented as soon as economically feasible and technologically available. As an aid to air pollution control agencies in the formulation of plans, including time schedules to implement emission control standards, the bill directs the Secretary, after consultation with appropriate advisory committees and Federal departments or agencies, to issue recommended control techniques which reflect current technology and the economic feasibility of achieving various levels of air quality as specified in the criteria, including alternative control techniques and their economic feasibility. Such recommendations shall include such data as are available on the latest available technology and economic feasibility of alternative methods of prevention and control of air contamination, including cost-effectiveness analyses.

Thus, the bill directs the Secretary to: First, designate air quality control regions; second, publish criteria; and, third, publish information on the best available control technology. Whenever a Governor has received the latter two documents, he must then move to establish air quality standards for any designated air quality control region within his State. A Governor is given 90 days to file a letter of intent to establish State standards consistent with the purposes of this act for the air quality control regions in his State. The standards must be set, after public hearings, within 6 months after he files the letter of intent. The time schedule and plan for implementing such standards must be filed within 6 months thereafter.

If a State fails to: First, file a letter of intent within 90 days; second, to establish standards within 180 days; or, third, file a plan for implementation and enforcement within 180 days, the Secretary is authorized to perform these functions for the air quality control regions within that State. When standards have been set, either by a State or by the Federal Government, the Federal Government will have authority to enforce the standards in the absence of effective State action. These are the three additional extensions of control and abatement authority S. 780 gives to the Secretary.

The Secretary will approve the State standards if he finds, first, the air quality standards are consistent with the air quality criteria and recommended control techniques which he published; second, the plan is consistent with the purposes of the act, including assurances of achieving such standards of air quality within a reasonable time; and third, a means of enforcement by State action, including authority comparable to the imminent endangerment provisions of this bill is provided. If the above conditions are met, such State standards and plan shall be the air quality standards applicable to such State.

Effective action in an air quality region will not depend upon the availability of technology which has not been developed. If the problem in a given region happens to be critical, such alternatives as have been used already will be applied. These include, for example, substitute fuels, plant location, and other techniques which are clearly available.

These, then, are the major provisions and the major thrust of the legislation. There are, however, other significant changes in the act which, in an effort to conserve time, I will summarize:

First. Specific directive to the Secretary to continue to use existing enforcement procedures as may be necessary to protect public health or welfare during the standards development period; and provision for participation by interested parties in an abatement conference.

Second. An expanded research and demonstration program to advance the technology for controlling pollution from fuels and vehicles, including specific authorization of $375 million for 3 years—through 1970.

Third. Federal preemption of the right to set standards on automobile exhaust emissions, with waiver of application of preemption to any State (California) which had adopted standards precedent to promulgation of Federal standards.

Fourth. Expanded State and local program grants provision to encourage comprehensive planning for air quality standards.

Fifth. Establishment of a statutory President's Air Quality Advisory Board and such other advisory committees as may be necessary to assist the Secretary in performing the functions authorized.

Sixth. A study of the concept of national emission standards, including an analysis of the health benefits to be derived, as well as the economic impact and costs.

Seventh. Federal assistance to the States to develop motor vehicle emission and device inspection and testing systems.

Eighth. Federal registration of fuel additives.

Ninth. Comprehensive cost analyses of the economic effect on the Nation, industries, and communities of air pollution control, and a report thereon to Congress and the President.

Tenth. Comprehensive reports to the Congress.

Eleventh. Three-year authorization of $325 million for programs other than research on control of pollution from fuels and vehicles—total authorization, including research, $700 million.

Improvement of man's environment centers on the enhancement of the quality of human life. This was appropriately stated by Dr. William H. Stewart, Surgeon General of the United States:

> Thanks to many advances in protecting people against disease, we are able in the health professions to think about the positive face of health—the quality of individual living. The healthy man or woman is not merely free of specific disability and safe from specific hazard. Being healthy is not just being unsick. Good health implies, to me, the full and enthusiastic use by the individual of his powers of self-fulfillment.
>
> Therefore in controlling air pollution for the benefit of health we are working toward an environment that is not only safe but conducive to good living. I know that you and the members of this committee share this aspiration.

For this reason, if for no other—and there are a great many others—I urge enactment of this legislation.

Mr. President, in closing I wish to express my appreciation for the outstanding leadership provided by the distinguished chairman of the Committee on Public Works, the Senator from West Virginia [MR. RANDOLPH], and his counterpart on the Republican side, the distinguished Senator from Kentucky [MR. COOPER], without whose assistance the work would have suffered in quality.

I wish especially to express appreciation to the ranking minority member of the Subcommittee on Air and Water Pollution, the Senator from Delaware [MR. BOGGS], for his continuing contribution to the work of this committee and all the other members of the committee and subcommittee who have given an unusual amount of thought, attention, and active participation not only to the consideration of this bill but also to its shape and form. This contribution has been so unusual as to require this special comment.

Finally, I wish to express my appreciation to the staffs of the full committee, the subcommittee, and the individual Senators who have worked together in an unusually effective cooperative effort to help the Senators

put this bill together. I could not begin to list them all by name, but this has been a nonpartisan and wholehearted contribution at the staff level and at the committee level and the bill bears testimony to the quality of that effort.

Mr. President, I would like also to pay a special tribute to the senior Senator from California [MR. KUCHEL] who authored the first Federal air pollution legislation in 1955. Though Senator KUCHEL is no longer on the Public Works Committee we continue to seek his guidance and he continues to give his full support and assistance. For this we on the committee are always appreciative.

Mr. President, at this point I yield to the distinguished chairman of the full committee, the Senator from West Virginia [Mr. RANDOLPH].

Mr. RANDOLPH. Mr. President, I commend the distinguished chairman of the subcommittee, Senator MUSKIE, for his leadership in bringing this measure to the Senate. The Subcommittee on Air and Water Pollution has had a productive record in the field of pollution control legislation. It is my firm belief as chairman of the full committee that the bill is the most significant step toward pollution abatement and control in the subcommittee's history.

I express also my appreciation to Senator BOGGS and Senator COOPER, the ranking minority members of the subcommittee and full committee, respectively, for their continued support and for their assistance in drafting the revised bill.

The record shall show my personal and official appreciation to all the Members who have contributed proposals—often criticism, but always constructive deliberation—as we have developed this measure. The complexities of this legislation reflect the intricate problems involved in air pollution control and abatement.

The pending measure has grown out of extensive revision of the original bill

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and of my amendments and others as the subcommittee and full committee worked diligently and patiently to provide the most effective course for control and abatement of pollution through reasonable, responsible, and enforceable standards. The committee staff, and the staff members of the committee, have labored long and hard with us in pursuit of a realistic proposal, and they deserve commendation. A considerable amount of patience and understanding has been exhibited by many, many persons.

I would also like to express my appreciation to the Secretary of Health, Education, and Welfare, John W. Gardner, for his counsel and cooperation and for the assistance and advice his staff has supplied to the committee. Our informal discussions on July 11 with Secretary Gardner were very helpful and informative, and his response to this measure, as expressed in his letter of July 12, 1967, to me reflects the cooperative spirit which has guided the working relationship of our committee and the executive branch. I ask unanimous consent that the letter received from Secretary Gardner be included in the RECORD at this point.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

THE SECRETARY OF HEALTH,
EDUCATION, AND WELFARE,
Washington, D.C., July 12, 1967.

HON. JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
U.S. Senate, Washington, D.C.

DEAR JENNINGS: Thank you for the opportunity to discuss the air pollution bill with you and your colleagues. Your full and carefull consideration of the very difficult issues involved in air pollution legislation deserves warm praise.

As I told you, the bill which the Subcom-

mittee reported to the full Committee does not provided everything the Administration requested, but it does represent a very important and constructive, forward step in the continuing development of effective legislation to deal with a serious national problem.

Your hearings have been thorough and complete. Your consideration of this legislation has been responsive and thoughtful. We are appreciative of the fine cooperation we have received from the members of the committee and from your fine staff.

You will agree with me, I am sure, that problems will occupy the attention of your continued consideration of air pollution problems will occupy the attention of your Committee and of the Department for years to come. We welcome this latest legislative proposal as another indication of the seriousness of purpose with which you have approached the problem.

Sincerely,

JOHN W. GARDNER,
Secretary

Mr. RANDOLPH. We have had deliberations as we should have. I call attention to the 4 volumes of hearings before the subcommittee. I do not know the number of pages. Has the Senator from Maine counted the number of pages?

Mr. MUSKIE. There are 2,694 pages.

Mr. RANDOLPH. The hearings reflect 2,694 pages of testimony and material pertinent to this subject.

Now, when we reflect, as we do in drafting this legislation, on these intricate problems we realize that even though the problems are compelling, the reason for a solution to the problems is even more compelling because the people of the United States and our citzenry generally believe we must present legislation in the national interest, keeping in mind the public health and welfare, and also the legitimate rights and responsibilities of those who are engaged properly in manufacturing industries and in other vital segments of our business complex in the United States.

Mr. President, I draw particular reference to one provision of Senate 780 as reported.

(At this point Mr. TYDINGS took the chair as presiding officer.)

Mr. BYRD of West Virginia. Mr. President, before my colleague gets into that area of his speech, I wonder whether he would yield to me briefly?

Mr. RANDOLPH. I am delighted to yield to my colleague from West Virginia. Although he is not a member of our committee, as a leader in the Senate, and as a West Virginian, he is faced, as I have been, with attempting to be reasonable and realistic and yet pass effective legislation. We have discussed some of these matters informally and I appreciate his keen attention to this problem and am happy to yield to him at this point.

Mr. BYRD of West Virginia. I thank my colleague for yielding to me.

Mr. President, I want to take a moment to compliment my senior colleague from West Virginia, who is chairman of the Committee on Public Works, and also to compliment the distinguished Senator from Maine [Mr. MUSKIE], who is chairman of the subcommittee which has brought the bill to the floor, on the very extensive and thorough hearings conducted by that subcommittee.

My colleague has just indicated that the four volumes of hearings which are on the desk of each Senator number virtually 2,700 pages. Looking at the list of witnesses, I note that scores of competent witnesses appeared and that scores and scores of statements were submitted to the subcommittee. I have also noted that the hearings were held all over the country; so, indeed, this subject has had the most comprehensive and thoroughgoing study of this subject which is of such vital importance to all our people.

I feel that the subject matter of this legislation is of the most vital importance to the health of our people and the well-being of our industries. I hope that the Senate, if not unani-

mously, will overwhelmingly support the legislation, because the legislation is so vitally needed.

Again, I thank my colleague for yielding to me, and I assure him of my support for the pending legislation.

Mr. RANDOLPH. The expressed words of my colleague are characteristic of his attention to legislation of this kind. Those of us who have labored in the committee and subcommittee are grateful to him for his comments on this occasion.

Now, I had previously called attention to a provision in Senate 780 as reported which gives authority to the Secretary to enjoin pollution sources that present an imminent and substantial danger to public health.

The Senator from Maine [Mr. MUSKIE] has properly emphasized that this authority is necessary. I ask the Senator, the Secretary did not ask for this authority? In effect, the committee proposal would give the Federal executive branch greater authority in this respect than the administration requested?

Mr. MUSKIE. The Senator is correct.

Mr. RANDOLPH. I thank the Senator. As Senator MUSKIE has emphasized, this authority the Secretary does not now have, and it is, I think, the most significant enlargement of his authority that is contained in this measure. It is my feeling that when we deal with an emergency there must be lodged within a responsible official of the Government the desire, the determination, and the decision to think in terms of public interest, and the authority to implement his decisions. Has the Senator from Maine any further comment to make on that statement?

Mr. MUSKIE. Yes. Mr. President, I made reference to this in my prepared remarks this afternoon. It is the objective of this legislation, as the Senator has said, to, first of all, provide adequate authority to deal with emergency situations. The committee realized that conditions exist in many parts of the country—which, with a shift in meteorological conditions, could bring about emergencies overnight resulting in the death of many, many people.

At the present time authority to deal with that kind of situation does not exist at the Federal level, and it should exist, particularly since so many of these potentially dangerous conditions are interstate in character. I think the intent is very clear.

Second, the committee felt it necessary to create authority which would come to grips with the long-range problems of lower level, more subtle exposure to air pollution and the effects on those who are chronically ill and, indeed, on those who are healthy.

While these policies unfold, the committee has made it clear that existing authority continues while standards are in the process of being developed and while public policies are developed by the Secretary.

Mr. RANDOLPH. I thank the Senator. I appreciate his further emphasizing this point.

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The Senate resumed the consideration of the bill (S.780) to amend the Clean Air Act to improve and expand the authority to conduct or assist research relating to air pollutants, to assist in the establishment of regional air quality commissions, to authorize establishment of standards applicable to emissions from establishments engaged in certain types of industry, to assist in establishment and maintenance of State programs for annual inspection of automobile emission control devices, and for other purposes.

Mr. MUSKIE. Mr. President, I ask for the yeas and nays on the pending bill.

The yeas and nays were ordered.

The PRESIDING OFFICER. The Senator from Maine has the floor.

Mr. MUSKIE. Mr. President, I yield to the distinguished Senator from West Virginia.

Mr. RANDOLPH. Mr. President, the committee recognized the need for participation by all segments of our national economy if air pollution control and abatement are to be achieved. For this reason there has been provided in the bill a 15-member President's Air Quality Advisory Board to advise and consult with the President, the Secretary of Health, Education, and Welfare, and the Congress on matters of policy relating to the programs administered by the Secretary under the provisions of this act.

Appointed members are to be selected so as to be representative of State, interstate, and local governmental agencies and of public or private interests demonstrating an active concern for the various aspects of air pollution prevention and control and related problems, not excepting individuals from the professions and industry who are expert in the field of air pollution.

Additional technical advisory committees are authorized to assist the Secretary in the development and implementation of air quality criteria.

The committee has included language which requires that all ambient air criteria previously issued prior to this act—oxides of sulfur only, at this time—must be reexamined and reevaluated in accordance with the updated provisions of this act, and, if necessary, that they be modified and reissued.

The economic and technological information which the Secretary must provide as a part of the recommended the medical and scientific data relat- control techniques to accompany the criteria is expected to reflect the same careful study and preparation as do ing to air quality criteria. In the report of the committee, the Secretary is urged to encourage and support continued efforts on the part of industry to develop economically feasible methods for the control of air pollution to improve air quality. Emphasis must be placed on technological advances, too.

State, regional, and local authorities throughout the United States will be moving forward toward achieving cleaner air in reliance upon these data—air quality criteria and recommended control techniques—using such data to measure the extent of their pollution problems, the technical feasibility of abating that pollution, and the economic costs involved. Therefore, it is most important that the Secretary furnish to the States, and to regional and local authorities, the air quality criteria defining health and welfare effects and recommended control techniques, as well as associated technological and economic data based on substantial studies and reliable evidence.

Recognizing the need for an accelerated Federal program directed at the control of emissions from the combustion of fuels, the committee has included in the reported bill the research amendment which I offered. Representing an expansion of research authority in the act, the provision stresses the urgency of the problem, and the amount of resources that the committee thought should be devoted to the task. With regard to appropriations, it is for the administration to decide the priorities against other Federal requirements. But, as far as the committee is concerned, the measure before the Senate includes the authorizations which we considered necessary to accomplish the task.

I ask that I may have the attention of the Senator from Delaware [Mr. BOGGS] at this point, because he has been very intimately acquainted and associated in this matter. We considered very carefully the matter of authorization of dollars. We have authorized a program of $700 million over a 3-year period. We feel that such an expenditure is necessary. We believe that the impact must be felt, the job must be done, and we must not fragmentize it.

Mr. BOGGS. Mr. President, I say to the distinguished chairman of the committee, the Senator from West Virginia [Mr. RANDOLPH], that he is absolutely correct, in my judgment, in the statement he makes. It was the committee's concept of this broad plan to attack the air pollution problem that we should provide the authorization, as realistically as possible, to meet the problem. I believe that is what the committee has done.

Mr. RANDOLPH. I thank the Senator. I think there was general agreement that this amount of money would be needed. We do not, of course, want money appropriated which cannot be used. Certainly this was considered very carefully. We attempted to think in terms of the potential for improving the quality of our air without inordinately disturbing the economic balance. Enactment of this measure is in the public interest, from the standpoint of improving the public health and general welfare. So I urge the Senate to give us what I hope will be not only overwhelming, but unanimous support.

Mr. President, S. 780 as reported by our Committee on Public Works, in my judgment, is a thoughtfully and rationally conceived legislative instrument which I recommend to my colleagues with confidence as to its workability, its potential for advancing the quality of the Nation's air without inordinately disturbing economic balances, and its applicability in the public interest from the standpoints of both improving the public health and the public welfare. I urge the Senate to give its overwhelming support and endorsement to this significant measure and I hope it will merit affirmative action in the House of Representatives.

Again, I commend the dedication, the diligence, and the wisdom of the distinguished manager of this legislation, the Senator from Maine [Mr. MUSKIE], and I appreciate and applaud the nonpartisanship on this issue primarily made possible by the helpfulness and the cooperation of the managers on the part of the minority, especially the Senator from Delaware [Mr. BOGGS] and the Senator from Kentucky [Mr. COOPER], the ranking members of the subcommittee and the full committee.

Mr. BOGGS. Mr. President, the distinguished chairman of the Committee on Public Works, the senior Senator from West Virginia [Mr. RANDOLPH], and the distinguished chairman of the Subcommittee on Air and Water Pollution, the junior Senator from Maine [Mr. MUSKIE] have effectively outlined the provisions of S. 780. I certainly agree with the points they have made.

It is clear to me that the proposed Air Quality Act of 1967 reflects the urgent need to step up our national effort to improve the quality of our air.

It is legislation of concern to the health and well-being of all Americans. Even those fortunate enough to be in the area where air pollution is not a problem travel to our urban areas; and, in the opinion of the Public Health Service every urban area of 50,000 or more population now has an air pollution problem.

Air pollution is an unwelcome companion to our Nation's growth and

prosperity. Those now living, as well as the generations to come, are dependent on action now if we are to make our air healthy again. This is a fight we simply cannot lose.

As in the original Clean Air Act of 1963, the proposed amendments again stress the fact that the prevention and control of air pollution at its source is the primary responsibility of States and local governments.

This provision is highly important. Our emphasis on it is further evidence of our belief in a strong Federal system in which each level of government carries out its responsibilities.

Also essential if the national effort is to be successful is the cooperation of industry and private citizens.

Because of the national, as well as local problem inherent in air pollution, the Federal Government has its clear responsibility in this field. This legislation intends to meet this by first giving the States every opportunity, plus financial assistance, to set up air quality standards. Only if States fail to act will the Federal Government set up the necessary air quality standards.

It is my hope and belief that, with the States moving expeditiously to carry out the task of devising air quality standards, the Nation as a whole will have a network of State and National quality standards in 5 years or less which will have been developed by and tailored to the different areas of our country.

I think it is also significant that this legislation strengthens research in air pollution. As we have delved into the problem in the last 4 years, it has become increasingly evident that we have much more to learn; and technological developments are constantly posing new threats to our environment.

The distinguished chairman of the Subcommittee on Air and Water Pollution has again demonstrated his leadership and dedication in this field and it has been a personal pleasure to work with him in considering this important legislation.

The whole Public Works Committee, and especially its able chairman from West Virginia [Mr. RANDOLPH] and the ranking minority member from Kentucky [Mr. COOPER], have been helpful in developing this bill. In this connection, I would particularly like to recognize the contributions by the other subcommittee members on the minority side, Mr. MURPHY and Mr. BAKER.

And I also want to compliment the staff, including my own legislative assistant, Mr. Hildenbrand, for the great effort they have made in working out the details and compromises involved in a significant piece of legislation such as the bill we are now considering.

Mr. COOPER. Mr. President, the pending measure embodying amendments to the Clean Air Act is a revision of the administration's proposal. It is a revision which every member of the committee, without any preconception, agreed upon after long hearings and a most thorough consideration as being a more effective means of securing clean air than the administration proposal.

This bill recognizes and declares again that air pollution is a critical, national problem. It provides in the view of the committee a practical and effective method to obtain timely and substantial control of air pollution. It is my judgment that under the program provided by the bill, substantial accomplishment can be secured in the prevention and control of air pollution—and within a period of 5 years.

I have never seen in my service in the Senate a better demonstration of the committee legislative process than

in its consideration and development of this measure. The record testifies to the thoroughness of the hearings. The Secretary of the Department of Health, Education, and Welfare and his staff gave our committee fine support. The research and work of the committee staff were outstanding.

The interest of the chairman of the committee, the senior Senator from West Virginia [Mr. RANDOLPH], led to its emphasis upon research—research in basic knowledge and in the technology that will be required for effective air pollution control. And his initiative led to the authorization of necessary funds to support adequate research and its application.

From the outset, Senator RANDOLPH recognized the importance and impact of the proposed legislation. The development of the bill rests in great measure upon his industry and good common sense and his leadership of the full committee.

The distinguished junior Senator from Delaware [Mr. BOGGS] led the minority subcommittee members—not on a partisan basis, for air and water pollution are hardly partisan.

The junior Senator from Delaware deserves great credit for his thorough, faithful, and statesmanlike work on this measure.

We are proud of the contributions of the minority members, the Senator from California [Mr. MURPHY] and the new member, the Senator from Tennessee [Mr. BAKER].

I pay special tribute to the distinguished chairman of the subcommittee from Maine [Mr. MUSKIE], who has taken the initiative in the field of air pollution control and abatement. It is fair and proper to say that he has brought before Congress and before the Nation as has no other Member of Congress, the importance and necessity of obtaining control of air pollution for the benefit of the people of this country. His successful work on water pollution control over a number of years, and now his work upon air pollution control, should give him great pride and satisfaction not merely as a personal achievement, which he deserves, but as a notable achievement for our country and its people. His work will benefit our country in all the years to come.

It came to my mind today in the course of a meeting of the Committee on Public Works on another subject that in the last few years our committee has accomplished a great deal in the way of legislation for the benefit of the country. We regularly consider bills apportioning funds for our great system of highways throughout the country and for the regular authorization of public works projects in the country, with tremendous impact upon the Nation's economy. In late years we have added to those measures bills such as the Highway Safety Act, which will reduce the fatalities and injuries on our highways; the Highway Beautification Act, which is having some trouble but which will come along to protect and enhance the beauty of the countryside; the Economic Development Act, which assists in providing systems of water and sewage for our communities; the Appalachian Regional Development Act, a new initiative in Federal-State partnership in the field of economic development of backward areas; the Water Pollution Control Act, and the Air Pollution Control Act. These measures will have tremendous impact upon the economic growth of our country, the conservation of the resources of our country, and the betterment of the good health of the people of our country. The sociological consequences and influences of these measures will continue for years.

I am very proud of the work that the Senate Committee on Public Works is doing, and chiefly because of the thought and nonpartisan work of

its members, both Democrats and Republicans, and the staff.

I pay tribute again to the junior Senator from Maine who has shown such vision and initiative in this work.

Mr. President, the senior Senator form West Virginia [Mr. RANDOLPH] and the junior Senator from Maine [Mr. MUSKIE] have detailed in their speeches the provisions of the pending legislation. I shall not go over that ground. However, I have a statement which gives my views on the important features, and the concept of the pending bill, and the differences between the approach that the committee has taken and the original approach suggested by the administration.

I ask unanimous consent that the statement be printed at this point in the RECORD.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

STATEMENT OF SENATOR COOPER ON S. 780

The Air Quality Act of 1967—developed after thorough hearings, months of study and full consideration—provides a practical and effective means of dealing with the serious problem of air pollution. It is recommended unanimously by the membership of the Subcommittee on Air and Water Pollution and of the full Committee on Public Works.

The revised bill S. 780 is an example of constructive development through the Committee legislative process. It is a strong bill, comprehensive, and can bring into full play the resources of the States and the Federal Government. It provides opportunity for the exercise of local initiative by the States and local communities in planning, establishment of air quality standards, and enforcement of pollution controls. The first initiative and responsibility are local. But if the States fail to act, the bill provides authority for the Secretary of Health, Education, and Welfare to do so.

S. 780, as written and recommended by the Subcommittee, is quite different from the bill proposed by the Administration—in its concept and in the mechanism which it provides for the attainment of its objectives. In addition to placing the first responsibility on the States, it offers a far moe realistic and orderly means than the Administration program toward securing the objec- [p. 19176]

tive of clean air. In addition to placing the first responsibility on the States, it offers a far more realistic and orderly means than the Administration program toward securing the objective of clean air.

The Administration's proposal contained two principal provisions. First, the establishment by the Secretary of emission standards for designated emissions from designated industries—such as steel, cement, pulp mills, oil refineries and power generating plants—with authority for the Secretary to issue cease-and-desist orders against any establishment violating such standards. Second, it proposed the establishment by the Secretary, upon request or his own initiative, of Regional Air Quality Commissions under the control of and creatures of the Department of Health, Education and Welfare, to establish air quality standards more stringent than those otherwise prescribed by the Secretary, and also enforceable by cease-and-desist orders issued by the Secretary.

The Administration proposal failed to take into account local differences in climate, weather, topography, and the concentration of industry and population. It failed to take into account the availability and development of alternatives to stack emission controls, such as tall stacks and the dispersal of new industry so as to avoid air pollution. It gave little recognition to the fact that in the case of many pollution agents, the technology of removal from flue gases, or from the fuels themselves, has not yet advanced to the point where methods and devices are available to control their emission.

In effect, the Administration bill could have set requirements impossible or impractical of being met. Not the least of its difficulties was the prospect of attempting Federal abatement action against every source of pollution in the nation. The Committee considers that the problems of air pollution, the cost of their solution, and the scope of the Administrative tasks of securing prevention and enforcing control, are too large to be handled except through the cooperation and participation of Federal, State and local government—and of industry. But we believe the Committee bill offers the means to actually accomplish air pollution control, rather than imposing national stack emission standards which could not be met, or setting minimum national emission standards which would be ineffective in the very areas where pollution problems are most serious.

The Committee bill, in contrast to the proposed uniform national emission standards and Federal enforcement plant by plant, directs its attention to the air we breathe in each locality of the country. For it is the quality of the air which is important—not a doctrinaire plan of Federal control.

These localities differ in their topography, in their weather—and in their degree of urban-

industrial concentration and patterns of growth which determine the effect of emissions on the quality of air in the locality.

The Committee bill places upon the States and municipalities the final responsibility for determining the quality of air, and for the abatement of any pollution that degrades that standard. It places upon the Federal Government, through the Public Health Service and the Department of HEW, the four functions which the Committee believes most appropriate as the Federal responsibility in providing assistance to the States and local communities:

1. The definition of air quality control regions, with the expectation that the Secretary will give priority in defining those regions to the areas in which air pollution problems are acute and most demanding of action.

2. The collection, analysis, publication, and dissemination to State and local control agencies of the health and welfare effects of specific pollution agents which may be the subject of *emission controls or abatement action—to* be known as "air quality criteria."

3. The collection, appraisal and dissemination of the existing technology, and of the developing and promising technology, for the prevention of pollution and control of the sources of pollution—including the latest data on methods, processes and devices, together with their relative effectiveness and costs of application in different situations and under different requirements of control.

4. The active development, through independent research anl cooperation with industry and others, of improved techniques and methods, including pilot plant applications and large-scale demonstration units.

The Committee bill also provides for the establishment of regional planning commissions, to recommend standards of air quality to the States and the Secretary. And very important, it provides for assistance to and the utilization of existing planning agencies such as metropolitan, regional and interstate bodies, which need to take into account the quality of air as they pursue area-wide planning to accommodate industrial development, the growth of cities, mass transportation, recreation, and other aspects of orderly growth.

Next, the Committee bill provides ample authority for the Secretary to establish regional planning commissions, to establish regional air quality standards, and to enforce those standards or the State standards, in the event the States fail to act within a reasonable time.

Finally, in one of the most important provisions added by the Committee, the bill authorizes the Secretary to act immediately in potential disaster situations, by seeking an injunction where there is imminent and substantial endangerment to the health of persons.

In our judgment, this concept for the achievement of clean air; this mechanism for the accomplishment of that objective through Federal-State cooperation; and this division between Federal, State and local authority of the primary responsibilities for research and development, for the analysis and distribution of information, for the definition of geographic regions in which air pollution problems require action, for regional planning, for establishment of the standards of quality of the air we breathe, and for enforcement of those standards, represents a comprehensive approach, and programs for effective air pollution control, it is flexible, practical, and orderly—and offers the certainty of substantial accomplishments in achieving its important national goal—but, I believe, within 5 years.

Under the plan of action provided by the Committee bill, the Public Health Service and the Department of HEW, regional planning agencies, State and local control agencies—and certainly those industries which must take the steps necessary to prevent air pollution—all have a large and demanding task. That task will require the best efforts of all and the application of substantial investments—investments of knowledge and experience, and the wise investment of resources—and research to achieve cleaner air for the people of the nation wherever pollution is now or might otherwise become a problem.

It is the desire of the Committee that this promise be realized for the benefit of the public health and welfare, and I hope the Senate will approve the Committee bill, that it will become law, and will be effectively administered.

Mr. COOPER. Mr President, our approach takes into account the features of weather and climate, topography, concentration of industry, and other factors, and really goes to the means of securing clean air rather than adopting doctrinaire national standards.

Our bill provides emergency powers to the Secretary, as has been outlined by the Senator from Maine and the Senator from West Virginia, to take whatever action he thinks necessary in situations where the health of the people is endangered.

The committee approach also provided an orderly and systematic means of engaging as a matter of first responsibility the action of the States and local communities, backed up with the authority of the Federal

Government to act, if local government does not act.

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The Senate resumed the consideration of the bill (S.780) to amend the Clean Air Act to improve and expand the authority to conduct or assist research relating to air pollutants, to assist in the establishment of regional air quality commissions, to authorize establishment of standards applicable to emissions from establishments engaged in certain types of industry, to assist in establishment and maintenance of State programs for annual inspection of automobile emission control devices and for other purposes.

Mr. MUSKIE. Mr. President, I yield to the distinguished Senator from Hawaii.

Mr. FONG. Mr. President, I rise to express my strong support for the pending bill, S. 780, the Clean Air Act of 1967, which it is my privilege to cosponsor, and which was reported unanimously by the Senate Public Works Committee on which I serve.

This measure represents a major step toward restoring clean air in America, where now smog and contamination all too often befoul our environment.

It is urgently needed to help protect the health of millions of Americans, particularly those in urban areas.

It is urgently needed to reduce the billions of dollars of economic loss every year resulting from harmful pollutants in the air.

But important and forward-moving as this bill is, it is not by any means the total answer. And we should not delude ourselves that it is. A great deal more must be learned and must be done if we are to clean up our dirty air.

The task of purifying air in our Nation's cities and polluted areas is exceedingly complex and difficult. But, for health's sake, if for no other reason, we cannot tolerate further delay in air pollution control.

I doubt if the Founding Fathers in all their wisdom would have anticipated that the States and Federal Government would one day have to take steps to regulate the air which the people of our land breathe. But today it is literally becoming more and more difficult to find a place to draw a breath of fresh air.

In a sense, the problems of air pollution are part of the price paid for the phenomenal success of the American economy and for the tremendous growth of our Nation.

Because so many people drive so many cars and trucks, because so many airplanes traverse the airlanes, because so many trains crisscross the continent, because so many forms of transportation emit noxious gases, we have harmful amounts of pollutants damaging the air.

Because so many factories produce so much for America's nearly 200 million people, we have intolerable amounts of pollutants contaminating our air.

The pulsing heartbeat of America's industrial areas serves our people remarkably well, but in the process many byproducts befoul the air we must breathe to live.

And so, as we have progressed, our Nation has increasingly despoiled one of our essential resources, a resource indispensable to life itself—pure air.

When the Secretary of Health, Education, and Welfare, Mr. John W. Gardner, testified on this bill before the Senate Subcommittee on Air and Water Pollution earlier this year, he described in broad strokes the dismaying picture of air pollution in America:

More often than not, an ugly shroud of pollution hangs over the New York area. This shroud thins out a bit now and then—and here and there—but most of the time it covers most of the eastern seaboard.

Along the shores of the Great Lakes, from Buffalo and Cleveland to Chicago and Milwaukee, where one metropolis barely ends before another begins, dozens of communities are fouling their own and their neighbors' air. The boundary lines that divide city from city and State from State are no obstacle to the flow of polluted air.

In Florida, as your subcommittee found when it visited there 3 years ago, fluoride pollution from the manufacture of fertilizer threatens to wipe out the cattle and citrus industries that once flourished in Polk and Hillsborough Counties.

In Pittsburgh, St. Louis, Cleveland, and many other communities, people are beginning to recognize that their old-fashioned smoke-abatement programs are inadequate to cope with the more serious and complicated air pollution problems now confronting them.

There is not enough air in the big sky

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over Texas to thin out the pollutants which sour upward from many of the State's thriving metropolitan centers.

Air pollution is a growing problem in places such as Tucson and Phoenix, whose once salubrious atmosphere had long made them a haven for people afflicted with respiratory diseases.

And in California, the air pollution problem threatens to halt progress and growth, despite valiant efforts by State Government and particularly by the county of Los Angeles.

It is not only in our large urban areas that polluted air damages property and endangers health. It is a problem in many smaller communities as well, and its impact is felt in agricultural and recreational areas where it damages farm crops, timber, and plants of all kinds.

Every community in America with 50,000 or more people has an air pollution problem. Many smaller communities also have serious air pollution problems.

We can only hazard an estimate as to the total amount of illness and suffering and number of deaths in our land attributable to our contaminated air.

More and more people are increasingly aware of the irritation to eyes, throats, lungs from breathing harmful contaminants in the air: carbon monoxide from gasoline, diesel, and jet engines; sulfur oxides, hydrocarbons and a variety of other compounds from a variety of sources.

We are convinced that poisons in the air aggravate respiratory problems, such as asthma, bronchitis, lung cancer, and emphysema. The lung disease emphysema is one of the fastest growing causes of death in the United States. More than a thousand workers are forced into early retirement every month by emphysema.

Added to the damage to health is the damage to homes, apparel, and other property from air pollutants.

Economic losses attributable to pollution exceed several billion dollars a year, according to estimates.

The total cost of air pollution in terms of health damage and economic damage is staggering.

The cost to clean up our air will be staggering.

But it is a cost we must bear and a cost we must share.

For the sake of health of the millions of men, women, and children in America, we must make the effort and we must pay the price to purify the air and keep it that way.

It is the committee's particular concern with protecting the health of Americans from polluted air that impelled us to write the pending bill, which goes considerably beyond existing law in means to attack air pollution.

In his message to the Congress on January 30 this year, the President declared:

The pollution problem is getting worse. We are not even controlling today's level of pollution.

Ten years from now, when industrial pollution and waste disposal have increased and the number of automobiles on our streets and highways exceeds 110 million, we shall have lost the battle for clean air—unless we strengthen our regulatory and research efforts now.

The pending bill does both.

It strengthens regulatory measures to prevent and to abate pollution of the air.

It strengthens research into the causes of, and control measures for, pollution of air.

In the field of regulation and abatement, the bill provides as follows:

First. When health of persons is imminently and substantially endangered, the Secretary of Health, Education, and Welfare is empowered to go immedately to court and seek an injunction against the emission of contaminants responsible for the danger. At such times of imminent and substantial hazard to people's health, as in Donora, Pa., a few years ago and in New York City last Thanksgiving, the Federal Government could move swiftly to curb the source or combination of sources of pollutants causing the hazard.

Second. As air pollution knows no city or state boundaries, the bill provides for establishment of Federal interstate air quality planning agencies if the States involved do not request that a planning agency be designated for an interstate air quality control region.

Third. The bill provides for the Secretary to designate air quality control regions and to designate air quality criteria. If a State fails to adopt air quality control standards within 15 months after receiving criteria and recommended control techniques from the Secretary, then the Secretary could set standards and implementing programs.

These provisions assure air quality standards and implementation programs for all States within a couple of years after the enactment of the bill.

Fourth. The bill also permits the Secretary to go to court after 180 days' notice to enforce any violation of standards in any designated air quality control region. In addition, there is a specific directive to the Secretary to continue to use existing enforcement procedures as necessary to protect public health and welfare during the period standards are being developed.

Fifth. The bill provides for an expanded research and demonstration program to advance technology for controlling pollution from fuels and vehicles. The total authorization is $375 million for 3 years—through 1970.

Sixth. The 3-year authorization is $325 million for air-pollution programs other than the just-mentioned research program.

This brings to $700 million the total authorized in the bill to fight air pollution.

Seventh. To encourage comprehensive planning for intrastate air quality standards the bill expands the grant program for State and local agencies.

Eighth. Also provided is a study of national emission standards and a study of the economic impact of pollution control. The study is to be submitted within 2 years.

Ninth. Federal assistance would be available to States to develop inspection and testing systems for motor vehicle emission and emission devices to control exhaust gases and by-products of motor vehicles.

Tenth. Federal registration of fuel additives is also required.

Those are the highlights of the bill in brief.

It is true, powers granted to the Secretary of Health, Education, and Welfare are considerable. In most cases, however, the bill gives the States and local communities first opportunity to control and abate air pollution.

The bill underscores what is a crying need: a national air pollution prevention and control program.

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We are moving in a field about which we know too little and in which we have too few skilled personnel.

But move we must, for the hazards are too great and growing.

The clock is ticking, but time is not on our side.

We have no choice except to intensify research and intensify control efforts.

S. 780 represents the studied efforts of the members of the Public Works Committee to provide the tools and the impetus, the fuel and the thrust to move ahead in a desperate race against catastrophe.

The approach is sound.

The need is urgent.

I strongly support enactment of S. 780, and ask my colleagues to join in passing the bill.

Before closing, I want to pay particular tribute to the chairman of the subcommittee on Air and Water Pollution, the junior Senator from Maine [Mr. MUSKIE], and to the ranking minority member, the junior Senator from Delaware [Mr. BOGGS], for their diligent efforts to devise a workable and effective bill to advance the struggle for clean air in America.

Mr. MUSKIE. I thank the distinguished Senator from Hawaii for his generous comments.

I yield to the distinguished junior Senator from Tennessee.

Mr. BAKER. Mr. President, my distinguished senior colleagues on both sides of the aisle have already outlined in some detail the nature and proportions of the country's compelling and increasingly severe air pollution problem. They have further described the way in which the proposed Air Quality Act of 1967 addresses itself to the abatement and control of the various pollutants which contaminate our limited air resource. I will not prolong this debate by repeating or elaborating upon what has already been adequately stated.

I do wish at this time, however, to express formally my full support of the bill which is now before us. While we would be ill-advised and quixotic to regard these amendments as a panacea, the bill is a good bill. It is a strong bill with teeth.

As all Senators know, hearings on S. 780 have been virtually exhaustive, given the state of the art at this point in time. Under the energetic leadership of the Senator from Maine [Mr. MUSKIE], some 18 days of hearings have been held from coast to coast. Such extensive investigation was not only warranted by, but also dictated by the unusual gravity and complexity of the problem to which our committee has addressed itself.

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The abatement and control of air pollution is closely bound up with two instances of critical equilibrium and balance in our national life. First, the need for control measures reflects a tension between the economic well-being and the well-being of our highly mobile, mechanized and urbanized society. Second, control measures and their enforcement have obvious implications in regard to the balance of power among our Federal, State, and local governments.

The problem of pollution control is further complicated by seemingly responsible estimates of its nature and severity which are at variance with each other. Another area of disagreement and controversy is the adequacy of current technology to deal with the problem. Another is the inequitable impact on certain industries in certain locations.

To be perfectly frank, had I been told in January that a bill as effective as the one which the Senate is considering today would be ready for enactment in July, I would have been skeptical. The subcommittee's extensive work and deliberation have im-

proved, I think, the proposal submitted at the first of the year.

The bill's hallmark is flexibility—not weakness—I am quick to emphasize, and not vagueness but flexibility, It recognizes, as uniform national standards could not have done, that the chemical nature and quantitative nature of pollution problems are not the same all over the country. The bill recognizes that much remains to be done in developing technology and in exploring other avenues of research; authorized funds and methods of assistance in research have been greatly expanded. The bill respects, insofar as it could, the prerogatives of the State and local governments. There can be no doubt that, while the Secretary of Health, Education, and Welfare is given greater and more far-reaching authority, the responsibility and initiative for action lie in the statehouses, the city halls, and the county courthouses of the Nation.

One very important aspect of air pollution abatement and control which is not within the jurisdiction of the Public Works Committee is the question of tax relief. Many of the control measures which will be applied in the coming years will be costly; many of them will produce little if any return on capital invested. Some polluters, I am sure, will be hard pressed or unable to comply with necessary regulations. I strongly urge that the Committee on Finance and the Senate as a whole give thorough and sympathetic consideration to a variety of measures now pending which would provide additional relief for capital investment in pollution control devices and techniques.

I close, Mr. President, by expressing my great admiration for Senator RANDOLPH and Senator MUSKIE and their tireless efforts in developing this legislation. I also commend Senator COOPER, the ranking minority member of the full committee, and Senator BOGGS, the ranking minority member of the subcommittee. They have provided valuable guidance for me in this intriguing work. Each member of the committee, along with an exceptionally capable staff, has devoted long hours of honest and bipartisan effort to developing this practical, workable step forward toward the control of a critical national problem.

Mr. YOUNG of Ohio. Mr. President, the Air Quality Act of 1967 authorizes a 3-year program designed to eliminate pollution from the air that Americans breathe. This meritorious legislation is of vital importance to the well-being of every inhabitant of the land. The bill reflects many hours of painstaking work by members of the Subcommittee on Air and Water Pollution of the Committee on Public Works. The members of the subcommittee and its chairman, the distinguished junior Senator from Maine [Mr. MUSKIE], are to be commended on their efforts. Also all members of the Senate Committee on Public Works gave time and consideration to this proposal.

Mr. President, more than 60 percent of all Americans live in areas afflicted with impure air. In most cities clothes drying on lines are dirty again by nightfall. New buildings are grimy before they are occupied. More than 135 million tons of aerial garbage is released into the bright, clean air every year. Half comes from automobiles. Americans are now beginning to clean up this mess. Dr. William H. Stewart, Surgeon General of the United States, has said:

> The problem of air pollution is a health challenge of the first magnitude confronting the American people.

For many years Congress has been reluctant to enforce strict air pollution controls, hoping that local and State governments would handle the problem. Our hopes have not been

realized. Furthermore, since dirty air does not respect political boundaries, one community's ordinances are not sufficient to control air pollution in an entire area. Air pollution is a national problem. The proposed bill will go far toward helping solve it.

Mr. President, the answer to this problem is by no means simple to find. The fact is that our great productive capacity contaminates our air, water, and land faster than nature and man can cleanse them. One cannot just simply eradicate the sources of pollution, for the very activities that contribute to pollution are the lifeblood of a modern civilization. However, there are acceptable ways of reducing and controlling the sources of pollution without disrupting our economy, without stopping the forward progress of technology, and without depriving Americans of the conveniences of a modern society.

For the thousands of years that man has inhabited the earth, he has treated his environment as a dumping ground for his wastes, confident in its ability to absorb them. Several hundred years ago, North America was a fair and unspoiled land, wild and beautiful; a land where the air was clean and the water of its rivers and lakes pure. Today, each year the sky darkens. The precious cover of air supporting life on this planet becomes dangerously soiled and poisoned. Life itself is menaced. People living in our cities are afflicted with lung cancer to a greater degree than those in rural areas. Of course, effective air pollution control involves added costs to both government and industry. Americans without doubt are willing to bear these additional costs if only they can once again breathe fresh air and enjoy clean water.

Mr. President, we must accelerate the war on air pollution, a war of far more importance to the welfare of Americans than the miserable war in Vietnam which we have made an American ground and air war. The problems will be many, and each must be met with strong programs to remove contamination, to restore a safe environment, and to conserve our natural heritage.

Mr. President, the rate at which we Americans are destroying our environment is astounding. Air pollution can no longer be considered as a problem to deal with only at the crisis level. We must not legislate on air pollution only when our major cities are choking to death. We must not wait to enact water pollution legislation only when all living organisms are dying in our rivers and lakes, and when our water is unfit for human consumption.

We must take action to avert impending disaster. We should create a system which will help us to foresee these hazards and prevent them from getting out of hand.

Today, 70 percent of our people live on only 10 percent of our country's land. By 1980, our population will rise to approximately 235 million. By the year 2000, we will have supercities stretching from Boston to Washington, from Buffalo to Milwaukee and from San Francisco to San Diego; in addition to other giant urban areas. The pollution problem, if not tackled adequately now, will have expanded to enormous proportions.

Mr. President, Americans make up only 6 percent of the world's population. Yet, we produce 50 percent of the world's goods and services, and more than half of the world's trash. The rate at which we are destroying our environment is incredible. For example, we are pouring 24 million tons of sulfur oxides every year into the air we breathe. Without controls this figure will double by 1980.

This year 90 million motor vehicles in this country will burn 60 billion gallons of gasoline. In simpler terms,

this means that each automobile will discharge more than 1,600 pounds of carbon monoxide, 230 pounds of hydrocarbons, and 77 pounds of oxides of nitrogen.

We Americans are applying annually 600 million pounds of pesticides, fungicides, and herbicides to soil and crops. The problems created in doing so will haunt us in the years to come. The biological effects of all these hazards will continue to grow slowly and silently over decades and generations. They may reveal themselves only after their impact has become irreversible.

The Air Quality Act of 1967 is an important step toward helping to eliminate air pollution and to safeguard future generations of Americans—to conserve our natural heritage not only for ourselves but for our children and grandchildren and for all Americans to follow us.

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Mr. RIBICOFF. Mr. President, we have finally reached the point in the development of our society where air pollution has ceased to be the invisible danger. Today, everyone can see it, feel it and smell it. More than 7,000 communities across the Nation are affected by it. It is a cause for national concern. But the magnitude of the problem has also given rise to a national determination to take the action necessary to shop the contamination of the atmosphere.

The distinguished Senator from Maine [Mr. MUSKIE] has been a leader in the battle for clean air. For the third consecutive year he has reported legislation to the Senate which makes a major advance toward this goal. I commend him for his outstanding efforts to purify the skies.

The Clean Air Act of 1967 is the product of 18 days of comprehensive hearings held in five cities. The bill is broad in scope. For the most part it vests initial regulatory authority in the States, but reserves ultimate power to the Secretary of Health, Education, and Welfare to control air pollution.

This legislation is a timely, logical, and responsible expansion of the Clean Air Act of 1963, which I sponsored. It contains four principal provisions: First. It requires the Secretary of HEW to define air quality control regions. All air pollution programs will be geared to these atmospheric units. Second. It grants the Secretary authority to create interstate air quality planning commissions, if the States do not do so. These commissions will assist the States and the Federal Government in developing air quality standards. Third. It permits the Secretary to establish and implement air quality standards for the control regions, if the States do not take such action within 15 months after these regions are designated and after the Secretary has issued criteria for air quality and information on abatement techniques. These standards will set limits on the pollution in every atmospheric area of the country. Fourth. The Secretary is authorized to initiate court proceedings to halt any pollution that creates a substantial and imminent public health danger anywhere in the country. This will enable the Secretary to act immediately to prevent a recurrence of the air pollution disasters of Donora, Pa., in 1948 and New York City in 1953 and 1966.

The bill provides $700 million over a 3-year period for program support and research. This will include an expanded research and demonstration program to advance the technology of controlling pollution from fuels and vehicles and an enlarged program of grants to encourage States and local governments to begin comprehensive planning for intrastate air quality standards. The bill also directs the

Secretary of HEW to conduct a 2-year study of national emission standards for industry.

Mr. President, the Public Health Service has reported that every urban area of 50,000 or more population now has an air pollution problem. In the coming years we can expect conditions to worsen as urban population increases, industrial production grows, and use of motor vehicles rises. To avoid a series of national air pollution tragedies our research and regulatory activities must be strengthened. We must insure that all our technological resources are brought to bear on this problem and that we exercise every economically feasible method of control.

The legislation now before us fulfills these objectives. It gives us a national program to upgrade the quality of the air we breathe. With this legislation we move beyond simply controlling and reducing air pollution. We have begun to direct our efforts toward establishing an environment that is conducive to good living. I support S. 780 and urge its passage.

Mr. MURPHY. Mr. President, at the outset I want to congratulate Senator MUSKIE and Senator BOGGS for once again steering through the Senate Public Works Committee, a bill which I believe represents a great, giant step forward in our Nation's battle against air pollution.

In addition, I believe S. 780 evidences the legislative branch's responsive to a clear need in the most responsive manner. And, Mr. President, the record is clear that it has been the Congress that has taken the initiative in the country's battle against pollution, both air and water. In fact, many of us in the Congress have been greatly disappointed in the administration's budget requests in the pollution area.

To the credit of the distinguished chairman of the subcommittee, and to the ranking Republican member, Senator BOGGS, this committee held most exhaustive hearings and developed an outstanding record. This record clearly documents the danger and suggests the direction in which the Nation should move in order to combat pollution. Subsequently, in executive session, the subcommittee hammered out and shaped the form of S. 780 that we now have before the Senate today.

It is a good bill; it merits the support of the entire Congress; it will receive the thanks of a concerned citizenry. Last year in a statement before the Senate Subcommittee on Air and Water Pollution, I stated:

> In my judgment the pollution problem is one of the most serious domestic problems facing our country today. While serious, it is not yet critical. The time is not in our side. It is running out. The delay will not only be costly in terms of dollars, but even more important, will be the possible detriment to human health and the interference with the general well-being of our society.

Mr. President, this bill, while recognizing the critical nature of the pollution problem, adopts a rational and reasonable approach to the pollution problem. It should do the job. It recognizes the legitimate and primary responsibility of the State and local governments in the field of air pollution but yet the message of the legislation is clear. Although we are going to give the States and the local governments the initiative in the pollution field, we will not permit inaction. The battle against pollution will and must be won. For while we are fully aware that cleaning up the air will be costly, an article in the Harvard Business Review estimated that expenditures of some $105 billion will be necessary over the next 30-year period to provide clean air. While costly, we recognize clearly that we cannot afford to do less.

Mr. President, we already know much about the damage that pollution

causes to both property and, more importantly, to persons. It has been estimated that property damages resulting from air pollution in the United States is $11 billion annually. Agricultural losses in my State total approximately $132 million each year. In addition, we know that pollution contributes to the deterioration and corrosion of our physical structures. As consumers, we can see the effects of pollution by the need for more frequent trips to the laundry and the need for more frequent car washes. Even more important, Mr. President, are the adverse effects that pollution may have on human health. Evidence continues to grow associating air pollution with certain respiratory disorders, such as asthma, bronchitis, emphysema and lung cancer. Surg. Gen. William H. Stewart on April 19, testified before the subcommittee and he centered his remarks on the adverse effects of air pollution on public health. Dr. Stewart, after discussing the types of evidence available linking air pollution and "specific health detriment," declared emphatically that air pollution was a health hazard and that the evidence created a "disturbing and convincing portrait of a major health menace.

It is clear, Mr. President, that we cannot wait until conclusive evidence is produced for it is obvious that air pollution does not do anyone any good. Therefore, it behooves us to clean up the air. Since my father was one of the Nation's outstanding track coaches, I naturally have an interest in track. I read with interest a March 30 study which appeared in the Journal of the American Medical Association, which concluded that high levels of smog have a negative effect on the performance of long distance runners.

Mr. President, as a Californian, I am very proud of the State's pioneering efforts in the field of air pollution. I am, however, as are most Californians, not satisfied with the quality of air that we have achieved. We can and we must do better. In Los Angeles County a vigorous and effective program to abate air pollution from stationary sources is paying off. Aimed at reducing the air pollution levels from stationary sources to those existing in 1940, the goal has almost been reached. Los Angeles County's control program for stationary sources has kept more than 5,000 tons of contaminates out of the air daily. Los Angeles County has demonstrated that pollution from stationary sources can be controlled. Los Angeles County and the State of California, for that matter, have demonstrated that local and State governments can, and are willing to, adopt and enforce standards to control pollution.

I only wish, Mr. President, that the State of California was making as rapid progress in controlling the pollution from the automobile as we have made in controlling the pollution from stationary sources. Unfortunately, such is not the

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case. Although we are making progress, the truth of the matter is that we have to run as fast as we can to stand still. This is so because of our rapidly growing population which is expected to double by the end of this century, and the increasing number of automobiles.

On May 27, 1966, the Air Pollution Control District of the County of Los Angeles issued its report to the board of supervisors regarding the status of air pollution control in Los Angeles County and the prospects of success of the current control program. Their conclusions were: First, current motor vehicle control programs will not achieve acceptable air quality in Los Angeles in the next decade, and second, control of motor vehicle emissions must be intensified and accel-

erated if Los Angeles County is to have acceptable air quality by 1980.

In California, Mr. President, it is estimated that emissions from the motor vehicles are responsible for approximately 80 percent of the Los Angeles problem, and I am certain that the automobile is a substantial contributor elsewhere. In 1966, all new cars were required by California law to be equipped with devices limiting the amount of hydrocarbons that can be emitted from 275 parts per million and carbon monoxide to 1.5 percent. Effective in 1970, standards have been adopted to further reduce the exhaust emissions in the case of hydrocarbons from 275 parts per million to 180 parts per million, and carbon monoxide from 1.5 percent to 1 percent. These statistics document the tremendous challenge the State of California will face in the next few years and the next decade as we attempt to clean up the air of the State of California. The extraordinary and compelling circumstances that have existed in California have prompted the State to move into uncharted areas. By so doing, the State and many of its citizens have provided the Nation with many of the tools, many of the ideas and with many of the competent personnel necessary to zero in on the Nation's pollution problem. That California has developed the needed expertise is readily apparent by counting the number of Californians that have been called upon by the Federal Government to serve in positions of leadership and responsibility in the Federal air pollution program.

It is because of the extraordinary and compelling problem that has existed and that exists in the State of California that the State has had to make a great effort in the past and will undoubtedly be called upon to make even greater efforts in the future, in order to assure that the citizens of the great State of California will have acceptable and clean air. Because of the efforts the State has made, and because of the very serious problem that exists, I naturally, was very concerned and very disturbed when the committee was considering the question of Federal preemption on the right to such standards of automobile exhaust emissions. I also, of course, recognize that industry's argument that they could not live with 50 different standards of 50 different States was not without merit.

I am particularly grateful for the recognition that the committee has given to the State of California by accepting an amendment offered by me which recognizes the State's unique problems and pioneering efforts by granting a waiver from the Federal preemption to the State of California, and thus insuring that the State will be able to continue "its already excellent program to the benefit of the people of that State." Because of the importance of this issue, Mr. President, I would ask unanimous consent that this portion of the committee's report dealing with the question of Federal preemption be printed in full at this point in my remarks.

There being no objection, the excerpt was ordered to be printed in the RECORD, as follows:

To date only California has actively engaged in this form of pollution control and, in fact, the initial Federal standard is based on California's experience. The Federal standard will be applicable to all 1968 model automobiles sold in the United States. Other States have enacted legislation and regulations governing crankcase emissions but this control method has been in general use throughout the United States since 1963.

On the question of preemption, representatives of the State of California were clearly opposed to displacing that State's right to set more stringent standards to meet peculiar local conditions. The auto industry conversely was adamant that the nature of their manufacturing mechanism required a single national

standard in order to eliminate undue economic strain on the industry.

The committee has taken cognizance of both of these points of view. Senator Murphy convinced the committee that California's unique problems and pioneering efforts justified a waiver of the preemption section to the State of California. As a result, the committee incorporated in section 202(b) a waiver amendment offered by Senator Murphy. It is true that, in the 15 years that auto emission standards have been debated and discussed, only the State of California 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.

This situation may change. Other regions of the Nation may develop air pollution situations related to automobile emissions which will require standards different from those applicable nationally. The committee expects the Secretary to inform the Congress of any such situation in order that expansion or change in the existing waiver provision may be considered.

Until such time as additional problems of this type arise it seemed appropriate that the waiver provision of subsection (b) should be limited solely to California. This approach can have several positive values:

1. Most importantly California will be able to continue its already excellent program to the benefit of the people of that State.

2. The Nation will have the benefit of California's experience with lower standards which will require new control systems and design. In fact California will continue to be the testing area for such lower standards and should those efforts to achieve lower emission levels be successful it is expected that the Secretary will, if required to assure protection of the national health and welfare, give serious consideration to strengthening the Federal standards.

3. In the interim periods, when California and the Federal Government have differing standards, the general consumer of the Nation will not be confronted with increased costs associated with new control systems.

4. The industry, confronted with only one potential variation, will be able to minimize economic disruption and therefore provide emission control systems at lower cost to the people of the Nation.

Mr. MURPHY. Mr. President, at one time air pollution in this country was thought to be a peculiar phenomenon which everyone associated with Los Angeles. Now, we are told that every city in the Nation with a population of 50,000 or more has an air pollution problem.

I have had the privilege and pleasure, Mr. President, of traveling across this great country and countless times over the past years my eyes have witnessed what the experts tell us—the pollution problem is a growing one and can be seen in every State.

On top of this, the leading authorities tell us that we will see a doubling of the population in the urban areas of our Nation in the next 40 years. The number of automobiles is expected to grow at an even faster rate. The challenge to the Nation is great. But we have no choice, Mr. President, if we are to assure to the American people the quality of air and the quality of life that they expect and deserve.

Early in this century, a great American, Teddy Roosevelt, very disturbed over the manner in which the Nation was allowing its land and its other natural resources to waste, led us on a great conservation movement. An equally great challenge faces us today.

Mr. President, air and water are also precious natural resources, which we have been neglecting for too long. All of us are guilty, and as the Los Angeles Times in a March 19 article, entitled, "Let's Clean Up Spaceship Earth," observed:

Spaceship Earth is a "closed space capsule." Only sunlight gets in; nothing leaves. Getting "rid" of waste often is merely the redistribution of it within our "capsule." But it stays with us in our journey through space.

I am encouraged, Mr. President, for I can sense a crusading spirit and a determination by all segments of our society that the Nation can and will be victorious in its battle against pollution. A Harris poll of April 3 indicated that there was more public support for accelerated Federal pollution control than any other single domestic program. Over one-half of the persons queried indicated that

they wanted more action by the Government. One-third supported action at the current level.

One seldom picks up a newspaper, a magazine, or a trade journal, Mr. President, without seeing an article on the pollution problem. Businessmen throughout the country recognize that we must win the battle against pollution and that we cannot afford to do otherwise.

Having the greatest of faith in our system of government and in the judgment of the American people, Mr. President, I firmly believe that what the American people want and demand will be accomplished.

Also, having the greatest of confidence in the genius and capacity of American industry, I am convinced that technology and know-how, where not presently ex-

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isting—and much of it is already in existence—can be developed. Industry should aim high; it should aim at completely or nearly eliminating pollution. The automobile industry, for example, should not rest until it produces a pollution-free engine. This does not suggest that we panic, for we cannot demand that which is not technologically or economically feasible.

Mr. President, we should not leave the impression that the bill we are enacting today will clean up the air overnight. It will provide a framework for effective action by State and local governments. I urge States to make maximum utilization of this bill's provisions and incentives, and I have a feeling that those elected representatives who do not heed the cry of the American people for clean air may not be elected officials too long. The bill rightly gives the State and local governments the opportunity to exercise leadership and to face up to the challenge and responsibility of cleaning up the Nation's air. By combining our resources of government, industry and individuals, I for one am confident that we can clean up the air.

Mr. President, I ask unanimous consent that a staff analysis of S. 780 be printed in full at this point.

There being no objection, the text of the bill was ordered to be printed in the RECORD, as follows:

PROVISIONS OF S. 780

S. 780, as ordered reported includes the following provisions:

1. Authority for the Secretary to go immediately to court in the event that he finds a particular pollution source or combination of sources, wherever such sources or sources may be located, is presenting an "imminent and substantial endangerment to the health of persons" to seek an injunction against the emission of such contaminants as may be necessary to protect public health.

2. Provision for establishment of the Federal interstate air quality planning agencies if the States do not request designation of a planning agency for an interstate air quality control region.

3. Provision for the Secretary of Health, Education, and Welfare to set ambient air standards in any designated air quality control region, if the States fail within 15 months after receiving criteria and recommended control techniques, to adopt such standards and an acceptable plan for implementation.

4. Provision for the Secretary to go to court, after 180 days notice, to enforce any violation of standards in any designated air quality control region.

5. Specific directive to the Secretary to continue to use existing enforcement procedures as may be necessary to protect public health and welfare during standards development period; and provision for participation by interested parties in an abatement conference.

6. A three-step approach to development of air quality standards including (1) designation, by the Secretary of Health, Education, and Welfare, of air quality control regions based on the need for pollution control and protection of health and welfare; (2) expansion of the existing provision for development and issuance of criteria as to the health and welfare effects of pollutants or combinations of pollutants; and (3) publication of information on the control technology required to achieve various levels of air quality.

(7) An expanded research and demonstration program to advance the technology for

controlling pollution from fuels and vehicles including specific authorization of $375 million for three years (through 1970).

8. Federal pre-emption of the right to set standards on automobile exhaust emissions with waiver of application of pre-emption to any State which had adopted standards precedent to promulgation of Federal standards (California).

9. Expanded State and local program grants provision to encourage comprehensive planning for intrastate air quality standards.

10. Establishment of a statutory President's Air Quality Advisory Board and such other advisory committees as may be necessary to assist the Secretary in performing the functions authorized.

11. A study of the concept of national emission standards and a study of the economic impact of pollution control.

12. Federal assistance to the States to develop motor vehicle emission and device inspection and testing systems.

13. Federal registration of fuel additives.

14. Comprehensive reports to the Congress.

15. Three year authorization of $325 million for programs other than research on control of pollution from fuels and vehicles. (Total authorization including research $700 million.)

Mr. YARBOROUGH. Mr. President, I am pleased to make a statement in support of the air quality bill of 1967. Air pollution, along with many other far-distant and not readily visible evils, is often lamented, but too seldom acted upon.

The Committee on Public Works has in the air quality control bill taken vital steps toward furthering public authority to curb air pollution. The committee deserves to be commended on the comprehensive and ambitious bill that it has presented to the Senate.

S. 780 recognizes that air pollution can only be abated by a total effort on all fronts and that a truly effective program to get cleaner air requires a combination of immediate action and long-range research. Both parts are essential to a formula for curing one of our Nation's most acute ills. The committee that has presented us with this bill did not shirk from its overwhelming task, despite the tremendous economic, administrative, and technological problems inherent in the implementation of the desired programs to control air pollution.

The air quality bill of 1967 proposes that minimum standards of air quality be set by the Secretary of Health, Education, and Welfare and establishes the regulatory equipment necessary to see that the clean air standards are enforced across the country. Besides coping with the obvious immediate problems that have aroused the greatest public attention, like the stifling smog in the larger industrial cities of our Nation, this bill also provides for research into the probable disastrous consequences of prolonged, unchecked pollution of the air. Such research will, no doubt, be of great help in discovering the relationship between the quality of the air and the health of the population. It is certainly the time for updating the now inadequate earlier measures for insuring the future safe content of our most vital resource—the air.

I am proud to be a conponsor of so comprehensive, broad-based, and yet flexible bill which attempts through regulation and research to alleviate the all too prevalent blight of air pollution.

AIR QUALITY ACT OF 1967—MANDATE FOR ACTION

Mr. KUCHEL. Mr. President, the Air Quality Act of 1967 represents a significant legislative victory in the continuing battle for clean air. It was more than 12 years ago that the first Federal legislation was enacted by the Congress dealing with the problem of air pollution.

As a member of the Committee on Public Works at that time, it still is a matter of deep personal pride that I authored the initial legislation effort —the Air Pollution Control Act of 1955. That proposal authorized the first program of research and techni-

cal assistance to devise and develop methods for the control and abatement of air pollution. But that bill, as does the one now before the Senate, recognized that the primary responsibility for the control of air pollution rests with State and local government as well as private industry. The Federal Government, as a consequence of the Clean Air Act of 1963 and the amendments that have been adopted since that time, has a mandate to provide leadership and assistance in the national effort to control this growing menace, but the real job has always been in the hands of the States, communities, and industries that create and are affected by pollution. And yet, despite the public and private efforts in this area, despite the volumes of research and the thousands of dollars of assistance, despite the controls that have been established, and the standards that have been developed, air pollution continues to grow and to threaten the environment of our Nation.

Today, the threat of a contaminated environment for mankind has become a real and major concern for all people. Science has deduced that the pollutants in the air strike at virtually everything that exists. In economic losses alone, air pollution costs the country billions of dollars a year through injury to vegetation and livestock, corrosion and soiling of materials and structures, depression of property values, and interference with ground and air transportation. Of even greater significance are the adverse effects on human health. Pollution has been related to a growing number of ailments—asthma, bronchitis, lung cancer and emphysema. The Surgeon General's office has indicated that:

> In the not-too-distant future, if present rates of national growth are sustained pollution will reach truly critical proportions.

The Department of Health, Education, and Welfare states:

> What is already known about the relationship of air pollution to illness, disability, and premature death, togther with considerations of prudence in the protection of public health, leave no doubt that the contemporary air pollution problem is a threat to the lives and health of millions of people in all parts of the country.

As the hazards increase, the Nation gropes for any effective answer or solution which can meet the challenge of air pollution. The American public, to whom the Congress is ultimately responsible, is no longer content with efforts

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which are not equal to the challenges of the present and the future.

The bill that is today before the Senate—S. 780—reflects a fuller appreciation of what really is at stake and seeks to provide unprecedented opportunities for effective action at all levels of government. The Air Quality Act of 1967 broadens air pollution programs at all levels of government in an effort to protect and enhance the quality of the environment.

But the creation of a national program of air quality is not in any sense intended to relieve State and local government as well as industry of its responsibilities in this area. The committee clearly points out in its report:

> The States will retain the primary responsibility to determine the quality of air they desire.

I was particularly pleased to see that the committee has recognized the outstanding efforts of my own State of California in attempting to control this growing hazard. California was one of the first to grant local jurisdictions the authority to regulate factories and other sources of atmospheric contamination through the

establishment of air pollution control districts. In 1959, the State legislature directed the State department of public health to establish standards for the air and created a motor vehicle pollution control board to test and, if necessary, require control devices; devices which in fact are today required on all cars sold in California. It is because of my State's pioneering efforts in this area that the committee accepted an amendment offered by my distinguished colleague, Senator GEORGE MURPHY, which allows California the power to continue to control its own standards on automobile emissions.

The true success of this legislation will be measured not by the Federal enforcement provisions that are established but by the response of local and State government and private industry to this mandate for action. It is clear that the efforts of all concerned have proven inadequate in the past. As I stated before the Subcommittee on Air and Water Pollution in February of this year:

> What is needed to meet this challenge to human environment is an attack equal to the threat . . . the time has arrived for an enlightened overview of the problems of the human environment and of measures and plans for solution of these problems, both immediate and long range.

Mr. President, the ultimate solution of present and future environmental problems will have to be generated out of a collaboration between government and industry the equal of which may be unprecedented, but the pattern for which is neither new nor controversial. The Air Quality Act of 1967 states, in effect, that the time for such action by government and industry alike is now. The protection of our human environment cannot, indeed, must not, be delayed any longer.

Mr. BREWSTER. Mr. President, today we are considering the Air Quality Act of 1967 which would amend the Clean Air Act.

This bill, S. 780, represents another positive forward step toward our long-range goal of restoring the pure quality of the air we breathe.

During recent months, I have been disturbed by reports from knowledgeable scientists that we are losing ground in our fight for clean air. It is simply getting dirtier at a faster rate than we are cleaning it up.

The air of most of our large cities, as well as many of our smaller ones, is filled with tons of polluting agents. As President Johnson has pointed out, this polluted air not only aggravates respiratory diseases in man such as asthma, bronchitis, lung cancer, and emphysema; but it also corrodes machinery and defaces buildings. The cost estimates for other forms of air pollution do exist, and they are staggering—$12 billion annually—about $65 per person. Federal money in air pollution programs is not money being poured down the drain. It is an investment, and it is an investment on which we can expect a substantial return.

I recognize that this bill will have a great economic impact, and have cosponsored legislation (S. 734 and S. 950) which would provide tax exemptions to encourage industries to institute pollution controls. These bills should go hand-in-hand with the Air Quality Act of 1967.

This bill, while it would increase Federal activity in the field of air pollution, is a vital support for those States and local communities that are moving aggressively to meet the challenge. It would:

First. Provide for the establishment of a regional approach to air quality planning;

Second. Provide authority for the Secretary of Health, Education, and Welfare to go to court to seek an injunction against the emission of

such contaminants as may be dangerous to the public health, or to enforce a violation of standards in any designated air quality control region;

Third. Begin to develop a set of air quality standards;

Fourth. Authorize increased research relating to pollutants from fuels and vehicles;

Fifth. Establish Federal standards on automobile exhaust emissions. Beginning with the 1968 model cars, antipollution control devices will be standard equipment; and

Sixth. Provide increased Federal funds for State and local clean air programs.

Air pollution control is a project which we must begin now before the air we breathe becomes so dirty and so toxic that the problem is entirely uncontrollable. The final bill which has been reported by the Committee on Public Works is slightly different from the original bill that I cosponsored. However, I think that this present bill is more workable. The committee deserves thanks for the careful consideration it gave to this measure. I urge my colleagues to pass this essential legislation.

Mr. PERCY. Mr. President, there are few commodities as precious in our society as the air we breathe. There are a few problems confronting us in our rapidly urbanizing society which deserve our attention more immediately, and to whose solutions we should be more attentive, than the rapidly multiplying and compounding problem of air pollution control. Accordingly, Mr. President, I wish to emphasize my enthusiastic support of the Air Quality Act of 1967.

This legislation will provide a broad base of support for an effective, coordinated nationwide program. The facts and figures on the amounts and kinds of refuse and choking filth daily poured into the air around us are truly staggering. We must act now, and act with increasing effectiveness at all levels of government if we are initially to bring the problem under control, much less start the long process of improving the present quality of the air around us.

Accordingly, I commend the Subcommittee on Air and Water Pollution and its chairman, the distinguished Senator from Maine [Mr. MUSKIE] for the quick and thorough action taken on this bill, which bears so extensively the imprint of its ambitious multicity hearings and deliberations on the original administration measure. And I particularly commend the Committee on Public Works for its sensitivity to the necessity for balance between Federal and State and local government action in seeking and implementing antipollution programs, devices, and techniques. For the essential responsibility for checking air pollution is at the local level. As the experience of my own city of Chicago has shown, this is the most effective level at which to start to turn back the menace which, though concentrated in our cities, is rapidly spreading across the face of the land.

I say "start to turn back," because as countless examples show, few pollution problem areas are limited to a single political subdivision. Regional problems, such as those in Chicago-Gary area and the New York City-New Jersey complex, confirm the need for the regional conferences and regional standards that the Air Quality Act proposes.

I might say in this regard that I hope the interest expressed by this body in consideration and passage of this Air Quality Act will have the effect of expediting executive approval of the Illinois-Indiana air pollution compact, S. 470, and other similar measures now pending executive approval. Where the States have acted,

in my view, the Federal Government should not delay in adding the necessary approval to implement these State laws. In the case of S. 470, executive action is long overdue.

Additionally, the support indicated in the committee report for incentive assistance for industries in meeting its costs of pollution control is most gratifying. As a cosponsor of S. 734, the Pollution Abatement Incentive Act of 1967 originated and introduced by the distinguished Senator from Kansas [Mr. CARLSON], I join in urging the Committee on Finance to hold hearings on these measures, so that this effective avenue of attack on pollution of both air and water may be opened.

Mr. President, in stressing the need for initiative and ingenuity at the local level, I do so from a home base of the experiences of Chicago in this field. One of the most advanced cities in combating pollution, the effectiveness of the Chicago program is compromised to a

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great extent by high-pollution areas in nearby Indiana, which have not yet had the relative success we in Chicago have enjoyed. In order that others may have the benefit of it, I ask unanimous consent that the initial presentation of our experienced and distinguished mayor, Richard J. Daley, to the Subcommittee on Air and Water Pollution be included in the RECORD at the close of these remarks. I call particular attention to a significant aspect of the Chicago story highlighted in this presentation which points out the voluntary effort of the industries located in the area which have recognized and responded to community responsibility to assist in solving the problem.

The Air Quality Act of 1967 is truly universal legislation in the promise of benefits it holds out to all our citizens. We can do no less, in providing for the needs of our present and future constituents, than to enact immediately these concrete, effective measures to continue efforts to control the pollution of a precious and limited resource, the air around us.

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The PRESIDING OFFICER.

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The bill having been read a third time, the question is shall it pass?

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The result was announced—yeas 88, nays 0,* * *.

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1.1h(4)(b) Nov. 2: Considered and passed House, amended, pp. 30939–30968; 30975–30981; 30988–30989; 30999

AIR QUALITY ACT OF 1967

Mr. SISK. Mr. Speaker, by direction of the Committee on Rules, I call up House Resolution 955 and ask for its immediate consideration.

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S. 780 is intended primarily to pave the way for control of air pollution problems on a regional basis in accordance with air quality standards and enforcement plans developed by the State. State standards and enforcement plans would have to be consistent with air quality criteria and control technology data published by the Secretary of Health, Education, and Welfare. The Secretary would be empowered to initiate action to insure setting of enforcement of standards if a State failed to take reasonable action to achieve compliance.

Mr. Speaker, this has been a subject which many Members of the House have long been interested in, and many people across our Nation. Certainly clean air is just as important as clean water, clean food, and in many other areas of interest in order to maintain human life in this country.

Unfortunately, as we have contaminated many of our streams, and contaminated other areas, we have unfortunately contaminated certainly in many places the air which human beings have to breathe.

In the consideration of this particular legislation I wish to commend the Committee on Interstate and Foreign Commerce for the time that they have spent, the studies that they have made, and the deliberations that have gone on. Particularly, I wish to commend the distinguished chairman of that committee, the gentleman from West Virginia [Mr. STAGGERS] for the work that he has done along with that of the other members of his committee.

Mr. Speaker, we come here today with a bill which I believe basically meets the majority of the needs and the requirements as a first step in attempting to clean up this air which is so important for all of us as human beings. However, I do have certain concerns, as many of my colleagues do, particularly from the State of California, with reference to some of the language in the House bill which is different from that passed by the Senate.

For years many of the States have had a rather passive or indifferent attitude toward air pollution, basically those States that were not confronted with the pollutants in the air that we unfortunately have had in some areas of California. But all the while the State of California, and in many instances with the vigorous opposition, I might say, of the automobile industry, has struggled to find a solution to what is a life-and-death problem to millions of Californians.

Instead of turning its vast research and financial resources loose on ways to make automobile exhausts safe for society, unfortunately the automobile industry in too many instances devoted its attention to ways to turn the family car into a prestige palace on wheels complete with six-way seats, and eight-track stereo.

The automobile industry we feel in all too many instances has shown a callous disregard for the health and safety of American citizens, and has been a balky and reluctant partner in the conscientious efforts of our people to find a way to reconcile its needs for transportation with its even greater need for safe, clean air.

All the State of California seeks, or wants, is the right to maintain the momentum it has gained in working out means for its own salvation.

We feel that many valuable years have been lost by our Nation for not attacking this problem vigorously in the past. But we also feel that now is not the time to shackle the determined efforts of a frustrated, red-eyed people that have had about enough.

We, in California, have had little leadership or help from the automobile industry in the past and, frankly, this is our concern with the bill and the present language before us that we are not content to let our fate rest with the industry and its Washington lobby in the years to come.

Mr. Speaker, many of my colleagues from California and particularly from the Los Angeles area where this problem has been such a serious menace are much more expert on some of the things that have been done and some of the actions that have been taken and some of the needs, and they will expound their ideas further. But certainly I do feel it is vital and important that California be permitted in view of the tens of millions of dollars it has spent in the past in developing programs and the State legislature has spent many weeks and months in developing regulations to protect the health of our people, that the State be permitted to go ahead and maintain those high standards which we feel are essential to the well-being of our State and not to permit the Federal Government to preempt—and that, basically, I think, is what the issue is here—the issue of preemption of States' rights in this area.

We seek no preferential treatment. We simply ask that so long as our standards that have already been promulgated are equal to or above those promulgated by the Federal Government that we be permitted to continue with those standards and enforce those standards. I think frankly, as we examine many areas in which the Federal Government has gone into the regulatory field, it has permitted States that have had regulations to continue so long as those regulations were equal to or above those standards set by the Federal Government.

As I say, that is the only thing we will be seeking in the amendment which later will be offered by my distinguished colleague, the gentleman from California [Mr. MOSS].

Mr. Speaker, I urge the adoption of the resolution, House resolution 955, in order that the bill, S. 780, may be considered.

Mr. Speaker, I reserve the balance of my time.

The SPEAKER pro tempore (Mr. PRICE of Illinois). The gentleman from California has consumed 8 minutes.

Mr. SMITH of California. Mr. Speaker, I yield myself 15 minutes.

Mr. Speaker, House Resolution 955 provides for an open rule with 2 hours of debate for the consideration of S. 780—the Air Quality Act of 1967. I believe the rule also provides for the House language to be substituted for the Senate language.

The purpose of the bill is to provide for methods to control and abate our national problem of air pollution by creating a series of regional control areas, primarily administered by the States involved, under standards of control and enforcement based upon criteria and data made available to the States by Health, Education, and Welfare.

That the problem is a serious one for our public health is too clear to be questioned. Illnesses from heart problems to lung diseases have been linked with the existence of polluted air in some of our cities. Every major

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metropolitan area has the problem to some degree, some continuously.

According to the report and testimony, the bill will continue all current programs for air pollution control and research now existing in HEW. In addition it will provide for a systematic control of air pollutant activities on a regional basis. These regions will be established by the Secretary of Health, Education, and Welfare within the next 18 months. They may include parts of several States or areas within one State. Each is to contain within it an area which, because of such factors as urbanization and industrialization, topography and meteorological patterns, is affected by common air pollution problems requiring uniformity of control action.

The provisions relating to the adoption of air quality standards are the key to the bill. Standards will not be national in scope, but will be tailored to each region, and based upon criteria and data collected and published by HEW. After such publication each State will have 90 days to inform HEW of its intention to set air quality standards on pollutants for each regional area with which it is involved. After such notice, a State has 180 days to set the required air quality standards, and another 180 days to develop plans for implementation and enforcement of standards. All such plans will be submitted to HEW for evaluation and approval as consistent with HEW's published criteria and data.

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If a State fails in any way to meet the requirements outlined above, the Secretary of Health, Education, and Welfare is authorized by the bill to perform the State's function of setting standards. A hearing board may be called at a State's request, but its recommendations too would be binding upon the State. Whether by State or Federal initiative, once the standards and enforcement provisions are activated, enforcement will be primarily in the hands of the State involved. Enforcement at the Federal level will occur only when a State or States fail to do so, and then only after notice by HEW of an intention to act if no appropriate enforcement action is taken within 180 days.

In emergency situations, where immediate action is necessary, the Secretary of Health, Education, and Welfare will have authority to go into court for abatement of any pollution that creates substantial and imminent public health endangerment.

The bill adds to the authorizations already existing for fiscal 1968, and makes authorizations for an additional 2 years; $33,000,000 is added for fiscal 1968, making the total $99,000,000; for 1969 the total authorized is $145,000,000; for 1970 the authorization is $184,300,000.

All appropriate agencies support the legislation.

The bill also provides for the creation of an Air Quality Advisory Board of 15 members to advise and consult with the Secretary of Health, Education, and Welfare and make recommendations to the President. All will be appointed by the President; they are $100 per day men.

A study of national pollution and emission standards is to be undertaken by HEW. A report is to be made to the Congress within 2 years of the need for and effect of such standards. Further studies of the economic cost of implementing this legislation are also required by the bill. This seems a little late to me.

There are separate views, filed by Messrs. MOSS and VAN DEERLIN. They oppose the action of the committee in removing the waiver provision for California which was in the Senate-passed version of the bill. It provided

that California could have more stringent antipollutant requirements than the rest of the country. These Members feel that California's problems are so serious in this field, and that her efforts so far have been a model for the Nation; under these circumstances they believe that a waiver provision is necessary if California is to adequately protect the public health of her cities.

And now, Mr. Speaker, I would like to direct my remarks to the bill and to the problem, as it affects the State of California. This is the third time that I have presented a "rule" on this subject. The previous measures, I believe, were referred to as the Clean Air Act. On each previous occasion I joined in supporting the measures. California welcomed the Federal Government into the field in an effort to try to solve this serious problem. But, I cautioned on each previous occasion, that I hoped that the Federal Government would not do anything that would hinder the efforts of California, because the problem there is by far the worst in the country. That we had spent, and were spending, millions and millions in an effort to solve it. Such statements were made in July 1963, in connection with H.R. 6518. Today, I find that if this bill, S. 780, is passed as approved by the Interstate and Foreign Commerce Committee, it will do what I feared might sometime occur if the Federal Government entered the field. It will preempt California's States rights and may seriously set us back for years to come in our efforts to rid California of its terrible smog problem.

BACKGROUND AND TECHNICAL MATERIAL

Since the time that smog became a major nuisance in the Los Angeles Basin, important steps have been taken to control objectionable emissions. In 1947 an air pollution control district was formed in Los Angeles County charged with the task of returning clean air to this area. The District was created by State law and it designates the county supervisors as members of the governing board of the district. As such, they are directly responsible to the voters. In the 18 years of its existence, dust, smoke, and fumes from steel factories, mineral industries, foundries, and the petroleum industry have been controlled to a very high degree. At present these industries have set an example for the rest of the country in cleanliness of their operations. As a matter of fact, the real estate development in the southwestern part of the basin would have been unthinkable without this control. One of the most difficult accomplishments and one of the most exasperating, too, has been the control of open burning in dumps and in home incinerators. The result of these control efforts is clearly seen in monitoring records which show that dust and oxides of sulfur have reached better than prewar levels.

After the cause of the eye-irritating part of the smog was identified, control of hydrocarbons at the petroleum industry was started. This phase of the control effort was practically finished around 1957.

In the meantime, the automobile emissions have more than doubled and gains made in hydrocarbon control at the refineries have been more than neutralized by this increase. While in the early part of the 1950's the district conducted exploratory investigations on automobile emissions, this was discontinued when in 1960 a State law was passed which created a special motor vehicle pollution board charged with the responsibility of controlling emissions of cars. The auto testing laboratory of the county was transferred to the State. During the 6 years of its existence important steps

toward hydrocarbon control have been taken. The 1966 cars have both crankcase and tailpipe emission brought to the State of California health standards. These standards require a tighter control in 1970 when the present exhaust standards of 275 will be reduced to 180 parts per million.

It is thus abundantly clear, Mr. Speaker, that southern California became aware of the dangers of smog long before other major metropolitan areas even admitted that they suffered from the same malady. However, the victory is far from won, in fact just holding our own has been a problem. But California is far ahead of any other part of the Nation in fighting smog—through enforcement of much stricter regulations than the rest of the Nation. We agree that Federal smog legislation is badly needed, but not legislation that will impede California's progress. That brings me to the pending measure, S. 780, from the possibility of its impeding California's progress.

As originally drafted in the other body, S. 780 set Federal standards to comply with those now in effect in California—toughest in the country. But if the measure were to pass in that form, it would mean that the Federal law would have preempted California's. In other words, if California wanted to raise its standards for controlling auto smog, it would have to come to Washington to get a new law passed. So Senator MURPHY, of California, offered an amendment which would permit California to have stricter standards if it deemed them to be necessary. The amendment was accepted unanimously. This is section 208(b) of the bill. Let me make it crystal clear that California is not asking to be released from the standards in the bill. We intend to comply with them. After all, they are ours in effect as of now. We simply want to be able to have any stricter standards that may be necessary to solve the problem. They will not be the whim of any one person. They will have to be placed into effect by appropriate legislation passed by the California State Legislature.

When the bill reached the House Interstate and Foreign Commerce Committee, the auto industry brought in its heavy weapons, and the result was that the Murphy language was amended out, and in its place was inserted the so-called Dingell amendment. This turns the situation completely around. It states that the Secretary of Health, Education, and Welfare may, after notice and opportunity for public hearing, upon application of any State which has adopted standards, prescribed standards limited to such State, which are more stringent. This means that California could not by legislative action have more stringent standards without first coming to the Secretary of Health, Education, and Welfare and getting permission. This could be a long, involved, time-consuming process. In fact, it places the entire State of California at the mercy of the decision of one appointed head of a Federal department. This just does not make sense.

The automobile industry argues that they cannot be faced with the possibility of being required to have different equipment for different States. If such a possibility existed, I could understand their concern. But California has the greatest problem, and if it is to be solved, it will have to be solved through the combined efforts of all concerned. And if we solve it, then other States that may later be faced with the problem will be years ahead in being able to base their decisions on the efforts and results which take place in California. California has been entirely

cooperative with the auto industry and it seems to me

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that the industry should be doing everything it can to cooperate with California. After all, California has almost one-tenth of the total population of the 50 States, and more than 10 percent of all automobiles sold are purchased in California. And the cost of any required equipment will be added to the price of the car. Californians purchasing cars will pay for it—not the automobile manufacturer. Does this not seem fair so far as the industry is concerned?

Let me emphasize that California is not asking for any money. Our exemption will not affect tourists. It is only to cars sold in California. We are not asking for a public works project or the like. We just want our States rights. We want to have the right to try to solve our very serious problem.

As an example of the seriousness, and of the interest in California, let me mention the following. On October 5 and 6, 1967, this year, the California Legislature Assembly Committee on Transportation and Commerce held hearings. Dr. Joseph F. Boyle, president of the Los Angeles County Medical Association, testified as follows on October 5:

The Environmental Health Committee of the Los Angeles County Medical Association, representing approximately 10,000 physicians, has reviewed air monitoring measurements and other data compiled by the Los Angeles County Air Pollution Control District. This committee concludes that air pollution is becoming increasingly worse and may lead to great lethality in this community.

The evidence is conclusive that the increase in the significant components of this air pollution is due primarily to emissions from motor vehicles. These emissions constitute a serious threat to the health of residents of the Los Angeles Basin. Although this is especially true for those who are ill, the very young and the aged, it also applies to those who are presently in good health.

The Los Angeles County Medical Association wishes to emphasize to the Legislature of the State of California and the Congress of the United States that a critical and worsening health crisis exists in Los Angeles County despite all efforts for its control. The pending crisis is imminent and demands that every appropriate action, however drastic, be taken immediately. No further delay can be tolerated with safety.

In this morning's mail I received, by air mail, a package which was delivered to me about an hour ago. It contained a set of X-rays. I am not familiar with X-rays. I cannot read them. I am not a doctor. I have not shown them to any doctor. I want to show the Members I have the X-rays here, and if any Member wishes to see them he can.

Accompanying the X-rays was a letter, dated Oct. 30, 1967, from a constituent, I do not know him personally. He is Mr. Paul A. Kyrlach.

The SPEAKER pro tempore (Mr. PRICE of Illinois). The gentleman has consumed 15 minutes.

Mr. SMITH of California. Mr. Speaker, I yield myself 5 additional minutes.

This letter was in the pouch with the X-rays. It reads in part:

H. ALLEN SMITH,
Congressman, Washington, D.C.

DEAR CONGRESSMAN SMITH: The x-ray that accompanies this letter was taken of the chest of my three year old daughter, Debbie, on October 23, 1967.

You will note that my Deborah's lungs show an infection. Our doctor called it: "smogitus." A low grade bronchial infection he directly attributed to the polluted air of the recent Los Angeles smog attack. His prescription: Pray for some clear days—and effective controls.

It is my wish that you show this tragic effect of air pollution to Congressman Dingell and solicit his suggestions for me. Should I uproot my family and move from the Los Angeles area?

The x-rays are on loan from: Glendale Clinical Laboratories, 1371 E. Colorado, Glendale, California.

Please return either to me or them as I am presently signed out with them. Thank you.

PAUL A. KYRLACH.

His pessimism was echoed by the local and State county's air pollution control officer, Louis J. Fuller and by

Eric Grant, executive officer of the State motor vehicle pollution control board. Both officials warned that California's present auto emission standards are inadequate and must be strengthened to cope with the continuing increase of motor vehicles.

As a result of these hearings, the committee unanimously agreed that California must retain the right to set and enforce its own standards for controlling motor vehicle emissions.

On October 5, 1967, the Los Angeles City Council passed a resolution calling upon Congress to amend the Air Quality Act of 1967 to permit California to set and maintain more stringent standards for controlling air pollution and also allow California to administer such standards at the State level. The Los Angeles County Board of Supervisors took similar action. The County Supervisors Association of the State of California took similar action. Newspapers, television, and radio are daily requesting the same action. Thousands of petitions have been sent to us here in Washington representing California.

An amendment will be offered to delete the so-called Dingell amendment and to reinstate the so-called Murphy amendment. We in California respectfully ask your support. Certainly 20 million people are more entitled to the support of the Congress of the United States than is the automobile industry. I urge you to help us.

Mr. Speaker, I know of no objection to the rule, and urged its adoption.

Mr. SISK. Mr. Speaker, I yield 10 minutes to the gentleman from California [Mr. HOLIFIELD].

Mr. HOLIFIELD. Mr. Speaker, I appreciate this time during the consideration of the rule, because I know that the time will be very tight during general debate and it probably will be very difficult for a nonmember of the committee to get any time.

I want to say at the beginning I think that the bill S. 780, that has been reported by the committee, is in general a good bill. I want to compliment the committee chairman, the gentleman from West Virginia [Mr. STAGGERS], and the subcommittee chairman, the gentleman from Michigan [Mr. DINGELL], and the members of that committee on both sides of the aisle, because I think they have done a pretty good job.

I want it to be very plain and clear that the California delegation is not opposing this bill. Neither do we have any antagonism to any member of the committee. I served with John Dingell, Sr., in this House for 12 years. He was one my very good friends and one of my best friends. I served with JOHN DINGELL, Jr., his son, for 12 years also, it so happens. I believe that we have had a good friendship. We have differed on a few questions and a few problems, but I think we have a good friendship.

I want to make it very clear that I am not among those in the press or otherwise who questions any Member's motives.

I do not go along with scurrilous attacks on the motives of Members. I do not care whether they are on my side of the aisle or on the other side of the aisle because I just do not believe in doing business that way.

While this legislation in my opinion is good legislation, I believe it can be made better. I believe there is no reason why in the judgment of the House amendments cannot be offered to bills, and all of us know that they are offered to bills, almost every bill that comes before this House. The House has a right to work its judgment after the committee has done its job.

Now, we in California have a unique problem, and that problem is caused by what we call an atmospheric inversion. It is also caused, to

some extent, by the peculiar topography of the metropolitan area of Los Angeles County, and the ad joining counties, because there is a spillover of this smog into adjoining counties.

We are talking about a place where more than 7 million people live in Los Angeles County alone, and another million in Orange County, where the gentlemen from California [Mr. HANNA and Mr. UTT] represent the people. We are talking about more people than in many of the States of the Union in population, and we are talking about more than 10 million automotive devices of different kinds, buses, trucks and automobiles. Twice as many automotive devices as any State in the Union, twice as many as New York, twice as many as Ohio, and we are crowded into small coastal areas and plains in between two great mountain chains. The mountain chain behind the metropolitan area of Los Angeles is 8,500 feet high. All you have to do is look at the photographs that are out in the lobby here, and you can see the density of this smog coming into that Los Angeles basin and lying there. You can see it at 8:30 in the morning when men are going to work in the factories with their lights on. The pictures are out there.

And let me tell you that these are genuine pictures, they are genuine pictures of smog conditions. They have nothing to do with the forest fires in California. I have a letter from the Los Angeles County Flood Control, so let us not have that assertion made during this debate, to the effect that these were taken on days when the forest fires were burning, and when the winds were blowing toward Los Angeles, and over the basin.

I have heard that there is going to be that assertion made, and I want to lay that to rest right now. These pictures were taken last week or the week of October 23, many of them.

Now, I see my good friend, Mr. H. R.

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GROSS, coming down the aisle with a gleam in his eye. He said to me yesterday, "You know, it is a real pleasure to me to see CHET HOLIFIELD advocating States rights.

I want to say to my friend, H. R. GROSS, that I am not embarrassed a bit. I have voted for many States rights provisions in bills in this House many, many times, and I have also voted for Federal principles in national legislation. And I will say that every Member in this House who votes for Senate bill S. 780 is voting for a Federal principle that carries across the Nation. And I hope that I can vote for Senate bill S. 780 also.

Mr. GROSS. Mr. Speaker, will the gentleman yield?

Mr. HOLIFIELD. I yield to my friend from Iowa.

Mr. GROSS. Mr. Speaker, all I want to say to the gentleman is welcome to the ranks, you are real welcome to the ranks.

Mr. HOLIFIELD. I thank my good friend. He said to me one day, if he thought I would resign—he said, "I get more pleasure out of you than any other Member of Congress"—and, of course, that is true.

Unfortunately, the flow of air knows no State boundaries. It knows no city boundaries. It knows no county boundaries. That is why regional areas are recognizing this bill that the committee has proposed.

We ask that California, a State larger in population, larger in square miles, and larger in its automobile inventory than many regions of the United States that have a number of States in it—be allowed not only to conform to the bill, S. 780, but to go beyond S. 780, to strip the require-

ments which are required by the Los Angeles County area because of that atmosphere and congestion of cold air coming in from the ocean to hold these auto emissions down at that level where people have to breathe.

I believe that the bill is a step forward nationally in that it requires of the automobile companies the same kinds of devices that we have required in California now for a number of years. When the automobile companies express concern just remember this—than since 1961 they have been putting these devices on these automobiles; and listen to this—the people of California have been paying for that.

We have some of the devices right here. Here is an air pump.

Here is a cutaway section of a valve chamber. All the motor does is to pump oxygen into the valve chamber and the oxygen causes the hot air in the valve chamber to burn in place of going out in the form of raw gasoline from the tailpipe of an automobile.

These devices run at different prices but this combination runs about $50. But the manufacturer does not pay for it. The citizen in California pays for it. Nobody complains because it is a lot better to pay for something to clean the air that you are breathing than it is to have your eyes smarting and to go around coughing and having people die from pneumonia, and children have died. Smog does raise the death rate in those areas during that period of time.

So the people of California are willing to work out their own problems—and I will say this—we have been working on it since 1947 and we have spent over $50 million in Los Angeles County alone of taxpayers' money. We have bought over $150 million worth of these devices in California.

There are 7.8 million cars in California that have these devices now in one form or another and not all of them are identical to this—but the devices as we have developed them from a technological standpoint have improved and are surely better devices. We want to keep on improving these devices because our present devices are not doing the job we want done in California. We are just keeping even and the reason we are only keeping even, although these devices improve the output of emissions by a factor in some instances from 50 percent to 65 percent—the reason we are not getting any better is because this year there will be 600,000 new automobiles coming into California.

So as we improve the air from the automobiles that are there, 600,000 a year more are coming in and spewing more pollutants into the air.

This situation does not obtain in any State in the United States. It does not apply to those States in the Midwest that have a free flow of air coming across the plains or to the States where they have a strong wind from the ocean, the Atlantic Coast and places like that. We are in a peculiar situation. We are not asking to be exempted from the Federal standards because we want lower standards. We know that we will conform to the Federal standards but we want to go beyond that. What is wrong with that? We are willing to pay for it—what is wrong with that? That is the amendment that the gentleman from California [Mr. MOSS] will offer and that is the amendment which was accepted by a vote of 88 to 0 in the other body.

All we are asking is to be given a chance to work out our own salvation at our own cost. All right—if you want States rights—is that States rights or is it not?

Do we in California, who have several hundred experts working on this problem, and who have been work-

ing on it for a period of 20 years, know more about the situation than some bureaucrat here in Washington? I say that we do. I say the very standards that we have adopted, many of them at our own expense—80 or 90 percent at our own expense—are now being considered and adopted by the Federal agencies that are involved.

So when the Moss amendment comes to the floor of the House, which is a reinstitution of the Murphy amendment that was accepted in the Senate, I hope the Members of the House will give it the consideration that we deem is necessary for the health of our people in the State of California. We do not want to break Federal laws by setting lower standards at Federal levels. We want to be allowed to spend our own money to protect the health of our own people. That is what we are asking for.

Mr. SISK. Mr. Speaker, I yield 3 minutes to the distinguished chairman of the Committee on Rules, the gentleman from Mississippi [Mr. COLMER].

Mr. COLMER. Mr. Speaker, first I want to extend my sympathy to the members of the California delegation on both sides of the aisle and welcome them into the States rights fold.

What is the problem here? They want to spend their own money to regulate the air in California. They do not want the Federal Government giving them a minimum or a maximum provision in taking care of this very serious problem.

Why can they not do that? Why cannot the sovereign state of California do the very thing that they want to do?

The question is answered very simply. This great judicial body across the plaza in their marble palace has invoked the doctrine of preemption. They take the position, as they took in the Cloverleaf Butter case and in a half dozen or more other cases, including one involving subversive activities in Pennsylvania, that once the Congress has entered a field of legislation, State statutes are null and void.

Is it not that simple? Does anyone disagree with that? Very well, we do not.

My great predecessor, the former chairman of the Rules Committee, here recognized that problem a long time ago. For several years he introduced in the Congress, as did I, a bill known as H.R. 3, which would restore the right to the States to do the very thing you are trying to do here today. But some people who, like the Court, term themselves "great liberals," will not go along with that needed reform.

I say that I have sympathy for these people. I am going to support their amendment for whatever that is worth. I do not imagine it will be worth very much, but whatever I can contribute, I will do so.

I have pending in the great Judiciary Committee of the House, not H. R. 3, but H.R. 395, introduced on the first day of this session, a bill which is similar to H.R. 3 that I have just been talking about.

I repeat, I am going to support the amendment of the gentleman from California, but my purpose in rising is to urge not only the California delegation, but all other delegations to get behind that legislation. Let us pass it and restore to the States the rights that they once enjoyed as sovereign States.

It is California's trouble today, and it will be Missouri's problem tomorrow. It has been Mississippi's problem a long time.

Let us get back to the fundamental principles of the Constitution, which under the Bill of Rights simply says that all of those powers not delegated specifically to the Federal Government shall remain in the States or the people.

Mr. SMITH of California. Mr. Speaker, I yield 1 minute to the gentleman from California [Mr. TALCOTT].

Mr. TALCOTT. Mr. Speaker, I live in a county—Monterey County, of California—on the beautiful central coast on scenic and historic Monterey Bay, one of the major tourist attractions of

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the United States, and one of the most productive agricultural areas in the world. In addition to the many important arguments already made by my distinguished colleagues who represent urban areas, I want to remind those Members representing rural areas that you do not have to live in the big cities or be entwined with freeways and overrun by motor vehicles to be concerned about smog and poisoned air.

Rural agricultural areas should be just as apprehensive and concerned as the big cities or megalopoli.

Our county literally turned down an application by Humble Oil Co. to build a $38 million modern refinery at Moss Landing on Monterey Bay. No other county in the Nation would turn down such a facility; but we are concerned about air pollutants. All rural and agricultural areas should be joining with the big cities in the fight to keep our air clean. If you live in, or represent a rural area and are not yet worried about the dangers of air pollution, please do not vote to prevent us from protecting our people, our agricultural industry, our towns, and our rural areas from the "four D's of pollution"—death, disability, discomfort, or damage.

The continual pollution of our environment by men and machines must be restrained. Most Members of the Congress have finally come around to this terrible realization. We are many years late.

To combat pollution great individual and collective consideration and effort are required. The citizens should have a right to join forces to deter the defilement of their communities. No person has the right to pollute another's environment. No person should be required to tolerate another's inconsiderate or malicious pollution of another's private property, or water, or air, or public place.

Strict laws are as necessary to protect our environment—air, land, and water—as to protect our personal safety and national interests.

Many States and communities have long since taken positive steps to safeguard their environment for themselves and their posterity.

Monterey County in California was the first county in America to employ a fulltime litter control officer to help keep our roadsides clean and attractive. We believe we have a right to prevent our own citizens and visitors from despoiling our roadside scenery and cluttering our highways with debris.

Long ago, our country banned billboards from the scenic roadways to preserve the natural beauty of our area. We set high standards and guard them zealously. We were disappointed and frustrated when the Highway Beautification Act of 1966 degraded our standards. We were not satisfied with the mediocrity forced upon us by the Federal legislation.

Long ago, the State of California attacked the problem of air pollution and smog. We have made great progress. We have probably been the foremost contributor to the "war on air pollution." We in California have set standards for the rest of the Nation to emulate. Air pollution is a deadly enemy. We cannot relax our effort or permit our attack to flag.

Almost always Federal legislation is a consensus, a compromise, a half measure. Federal legislation is seldom

superior; it is almost always mediocre. This bill is a classic example of this particular shortcoming and failure of Federal legislation. Here, one State, California, has superior legislation designed to protect its citizens from a deadly condition. California would be derelict in its public responsibility if it did not develop and maintain adequate safeguards for its citizens against air pollution.

This is a State responsibility regardless of what the national interest or Federal attitude may be. It is ironic that the committee report on page nine states:

> The approach taken in this bill would hinge mainly on State action to deal with air pollution problems . . . In brief, the States would be responsible for setting air quality standards . . . it will be up to the State governments to determine, first, the maximum concentrations of pollutants that will be permitted in the air.

Yet, when it comes to one of the major sources of air pollution, the State which has on its own initiative taken the most effective action to control pollution from automobile exhaust would be precluded from setting standards more stringent than those for other States.

Failure to accept the so called Murphy amendment is tantamount to active and direct intervention by the Federal Government to prevent the State of California from protecting its citizens from death, disability, discomfort, or damage.

Here is a State acting on the basis of unrefuted evidence and in the best interests of its citizens and the Nation which will be frustrated and even prevented from taking the necessary steps to ameliorate air pollution unless this amendment is adopted.

The Moss-Reinecke amendment should be passed unanimously. Can there possibly be a Member of this House who would intentionally vote for a bill which would prevent a State official from acting in the best interests of the citizens of the State? I cannot believe that such is true.

If any Member votes against this amendment, he will be committing two serious errors. First, he may contribute to the death, disability, discomfort, or damage to millions of California residents and visitors. Second, he will be dramatizing the mediocrity of general Federal laws which perforce must apply evenly to every citizen in every State.

There can now be little wonder why many of us prefer to permit the individual States to solve their own local problems. Federal laws too often impose mediocrity upon all citizens. In this instance, we cannot tolerate the mediocrity. In this case, the mediocrity can cause death, disability, discomfort, or damage.

We must pass the Murphy amendment; we must let the State of California establish higher standards; we must permit the State of California to set new examples and lead the way for cleaner air. We can do all this without any harm to any other citizen in any other State. We can do more to fight air pollution by passing this amendment than by defeating it.

I urge every Member to let California and other like-minded States protect their citizens and visitors from the disabling, discomforting and lethal effects of air pollution. I urge the passage of this amendment.

Mr. SISK. Mr. Speaker, I yield such time as he may consume to the gentleman from Texas [Mr. PICKLE].

Mr. PICKLE. Mr. Speaker, I rise in support of the rule and in support of the bill.

Mr. Speaker, air pollution is one of the most major health challenges confronting Americans tolay. The prospects of a spoiled atmosphere are awesome, therefore I rise in support of the wise and timely provisions of the Air Quality Act of 1967.

As a member of the Interstate and Foreign Commerce Committee, I have an intrinsic knowledge of the problems faced in determining the final form of this bill—and I commend it to you now as the best possible solution to this ultracritical problem.

Since 1963, when the Clean Air Act was first passed, the Federal Government has recognized the need for controlling the level of pollution in our air. Later measures were passed in 1965 and 1966 to strengthen and improve the legislation under which these programs were initiated, and under all of these laws, the initiative is vested in the State and local governments. The Federal Government is presently spending over $25 million a year on matching grants and research and this has gone to create 80 new local air pollution programs and to improve some 40 others. Also, the current laws have provided the basis for national standards controlling the emissions from automobiles, and these go into effect on the 1968 models.

There is virtually no region of this country that is totally exempt from the danger of air pollution. The growth, amount and complexity of air pollution that has been brought about by urbanization, industrial development and the increasing use of automobiles has resulted in mounting immediate dangers to the public health and welfare.

The Surgeon General has cited evidence to support his conclusion that—

> Air pollution is clearly unquestionably a factor in the development of not one, but many diseases affecting literally millions of our people.

I feel that the start made on the problem of air pollution is indeed a good one. It is characterized by responsible, sound judgment and I think the groundwork has been laid.

The legislation we consider reflects a realization of what is really at stake in the fight against air pollution and provides unprecedented opportunities for effective control action at all levels of Government. Control actions, that I might add, can and will save lives.

We cannot afford to wait until each community and hamlet in this Nation is faced with killer fogs or smogs similar to those which killed hundreds of British in the 1950's.

Still, there are unsatisfied problems in the program, and it is to these that the act of 1967 is addressed. Perhaps one of the greatest loopholes in the current law

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is that for those areas which do not choose to initiate their own control system there is very little left in the way of relief. Even though the pollution of one city may carry across State lines to do harm and discomfort in another State, there is no central authority to which an appeal for relief can be made.

The Air Quality Control Act of 1967 handles this problem. Under the terms of the act the Secretary of Health, Education, and Welfare is required to delineate the broad atmospheric areas of the Nation, mainly on the basis of those meteorological and topographical factors that influence the diffusion and transport of pollutants in the air. Then, after consultation with State and local agencies, the Department would be empowered to designate "air quality control regions." Such regions could include parts of two or more States or could lie entirely within a single State. In either case, each one would include a group of communities affected by a common air-pollution problem.

After a region has been established, a regional planning agency, containing representatives from the States involved, would meet to review the causes of the particular problems they face. The Secretary would assist them by

providing information—criteria—as to what particular pollutants are prevalent in the area, and by giving advice as to what steps are available to control that pollution. The regional agency then would establish what levels of pollution would be allowed in their region, and what individuals must do to comply with that decision —this function is known as setting standards.

Finally, the States who are members of a region are individually responsible to enforce the standards they have agreed to. Thus, the States must be an active participant, and can, and should, take the leading role in establishing standards.

Only if there is a breakdown of the process which I have just described will the Federal Government become actively involved. Hence, if a regional planning agency fails to set standards, the Secretary may perform this function. If the enforcement a State affords is inadequate, then the Secretary may initiate suit to enforce the standards.

Through this system, local initiative and control is preserved, but when local governments fail to act, there is still a means to protect the public.

Mr. Speaker, the bill before us today has received broad, bipartisan support. Only last week, the House Republican policy committee endorsed the bill, and I am glad to see that there is such good understanding of the problem.

As President Johnson said in his clean air message of January 30, 1967:

> Ten years from now, when industrial production and waste disposal have increased and the number of automobiles on our streets and highways exceeds 110 million, we shall have lost the battle for clean air—unless we strengthen our regulatory and research efforts.

Mr. SISK. Mr. Speaker, I yield 4 minutes to the gentleman from California [Mr. HANNA].

Mr. HANNA. Mr. Speaker, at the outset I should like to correct an impression that was left with the letter that my good friend, the gentleman from Michigan [Mr. DINGELL], sent to all Members relative to an article that appeared in the Fullerton News Tribune, which happens to be in my district. I have a telegram from Mr. Elfstren, publisher of the newspaper, this morning in which he says:

> I am afraid Congressman Dingell has misunderstood the editorial position taken on October 3, by the Fullerton News Tribune. The Tribune fully supports the California Delegation's attempt to gain a waiver allowing California's high standards for air pollution control devices to remain in effect.

I should like further, in the presence of the gentleman from Michigan [Mr. DINGELL], to make reference to that letter in which he says that the bill provides the Secretary shall promulgate for California such standards which are more stringent or apply to emissions or substances not covered by the nationally applicable Federal standards. As has been pointed out by my friend from California in his presentation, the bill actually, on page 97, dealing with the State standards, provides that—

> The Secretary may, after notice and opportunity for public hearing, upon application of any State which has adopted standards . . . if he finds that such State requires such more stringent or other standards . . .

I think it should be clarified, that it is the "may" language, and not the "shall" language.

Mr. DINGELL. Mr. Speaker, will the gentleman yield? The gentleman mentioned my name.

Mr. HANNA. I will yield to the gentleman immediately after I clarify this point.

If the Members will look at what very simply is proposed in the Dingell amendment as opposed to what is in the Senate bill and what will be proposed by Mr. Moss' amendment here,

this is the situation where we are asking for consideration.

The Senate bill says in effect to California, "You may go beyond the Federal statutes unless we find that there is no justification for your progress." Mr. DINGELL'S amendment says, "You shall stay where you are unless we find there is some justification for your going further."

So it is the question of whether the law shall read, "Do not move until we tell you," or whether the law shall read, "Continue your progress until we find some reason to stop you."

I believe the position of the Secretary has to be understood in determining which way he should utilize his powers.

Mr. DINGELL. Mr. Speaker, will the gentleman yield?

Mr. HANNA. I yield to the gentleman from Michigan.

Mr. DINGELL. I want to read the language of the editorial. I do not know when the letter referred to was sent out, but I do have a copy of the editorial. It is from the Fullerton, Calif., News-Tribune. It reads in part:

> We do not agree that the Smog Control Program approved by the House Commerce Committee is necessarily bad because it modified California's option of imposing more stringent measures than would be obligatory in the rest of the country.

It goes on and says as follows:

> California should have no difficulty in proving its case to the Secretary. There are more automobiles in this state than there are people in all but three of the 50 states of the Union.

It goes on and points out why California should be able to come forward very clearly and establish an adequate basis of need for getting the special treatment it seeks.

If the gentleman will yield further, I will put the editorial in the RECORD. I assume that the gentleman is fully capable of reading it. It certainly is capable of speaking for itself.

Mr. HANNA. Let me say that the editorial will be in the RECORD, and every Member can make his own interpretation of what it says. The language is the best evidence.

I should like to sum up by saying *it is not a question of what this* newspaper says or does not say. The question very clearly is on what should be the utilization of the Secretary's powers. Shall he use his powers to stop us from making progress, or shall he allow us to make progress unless his power needs to come into play to say it is not required that we make progress?

As to the situation in California, with everything we have been doing we have been losing ground to smog. *That does not mean to say California* has not been doing a good job, because this is a tremendous engineering problem. It is not a political problem we face. We have a hard time just staying even with the problem.

Believe, my friends, we are out in front of anyone in any other place in the country on this problem.

Further, the people of the Los Angeles basin have seen a bright sun only a few hours in the last 2 weeks. A heavy blanket of smog, made up of nearly 14,000 tons of noxious solid wastes are released daily into the southern California sky returning ordinarily bright days into muddy brown.

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This condition would be unacceptable under any circumstance. It kills plant life. It destroys valuable property. And most of all, it infringes upon what I called, in a speech delivered before this House some months ago, 'The Right To Breathe."

How fundamental is this right to breathe? I would assert it is as basic as the oft quoted phrase of the Declaration of Independence that "every

man is entitled to life, liberty, and the pursuit of happiness." Science has shown that clean air is essential to normal life. We have recognized in our foreign assistance programs that an unhealthy person has no liberty. At least the same standard should apply here. Experience, such as the one the people of southern California are enduring at this time, indicates that pollution of the magnitude we are seeing is an antithesis of "happiness." Our constituents are aroused to a fever pitch of unhappiness over this condition.

A STRANGE STATE OF AFFAIRS

Given the "crisis level" problem of air pollution we observe in California, one would expect that this Congress—responding to the needs of this area, as it has to earthquakes in Alaska, floods in Louisiana, and riots in our cities—would be turning its efforts to more effective programs to deal with this equally serious problem.

Instead, I and my colleagues from California find ourselves confronted with legislation which could if enacted, reduce the effectiveness of our already inadequate efforts—local, State, and Federal—to combat this clear and present danger to our fundamental right to breathe. Last spring, shortly after the administration announced the specifics of its Air Quality Act, I placed in the RECORD a statement in which I attempted to point out the shortcomings of the proposal. In that statement—"The Right to Breathe"—I said the most glaring shortcoming of the President's clean air program was the limited way with which it dealt with the deadly emissions from auto exhaust. I made clear the standards for auto exhaust emissions in the President's proposal were below those required by the State of California. I went on to say that even with California's high standards, and the vigorous battle waged by the Los Angeles Air Pollution Control District, air pollution, primarily from auto exhaust emissions was becoming an increasingly alarming threat in the Los Angeles Basin.

My hope at the time I made the statement last spring was that by calling to the attention of the House at an early date the serious defect in the President's proposal ample time would be available to develop a strengthened piece of legislation.

Unfortunately this has not been the case. Not only has the bill not been strengthened, but it now carries a provision recommended by the House Interstate Commerce Committee which could all too easily have the effect of reducing California's high standards for auto emissions.

The illogic of reducing California to the inadequate minimum standards the bill requires for the rest of the Nation is obvious to even the most casual observer of congressional politics. Certainly it is difficult, in view of the national magnitude of the problem, to comprehend why this Congress does not demand that the standards for auto exhaust emissions be equal to the standards of California. To penalize California for being ahead of the rest of the country in combating the menace of air pollution is totally incomprehensible.

Section 208(b) of the air quality bill which is before us represents a deliberate attempt on the part of special interest groups to strip our State of the ability to protect our people's right to breathe. It will penalize our State for making a significant attempt to control air pollution. I am completely opposed to the section of the bill which reduces California's standards and will support my able colleague, Representative MOSS, in his efforts to amend this bill to allow California's more rigorous standards to remain in effect.

The irony of this sitution is inescapable. History will surely judge harshly a Congress which, in the face of a massive attack by noxious air pollution, crippled our State's already inadequate ability to defend itself.

Mr. SMITH of California. Mr. Speaker, I yield 5 minutes to the gentleman from California [Mr. BELL].

Mr. HOSMER. Mr. Speaker, will the gentleman yield?

Mr. BELL. I yield to the gentleman from California.

Mr. HOSMER. I thank the gentleman.

I just want to point out, in connection with the so-called controversial editorial, it comes from a relatively small newspaper in a relatively smog free area, and undoubtedly was written by a man who had absolutely no experience in trying to convince a Washington bureaucrat that some kind of standard he requires higher than those for somebody else should be imposed.

Mr. MOSS. Mr. Speaker, will the gentleman yield?

Mr. BELL. I yield to my distinguished friend from California.

Mr. MOSS. I should like to point out that my good friend from Michigan had to search long and hard to find even this single remote editorial which ambiguously states a case which could be interpreted either in support of or in opposition to his amendment. I do not believe he will produce other editorials from my State even giving this very fragile support to his position.

Mr. BELL. I thank the gentleman.

Mr. Speaker, if anyone in the United States has earned the right to demand full Federal cooperation in controlling air pollution, it is the 7 million people of Los Angeles County.

For 20 years, they have operated the leading control program for stationary sources of pollution at a cost that has been estimated at three-quarters of a billion dollars.

Today, as the result of this tremendous effort, pollution from such sources is minor.

Ninety percent of pollutants in the atmosphere of Los Angeles County result from motor vehicles.

Exhaust ctontrol systems have been installed on cars sold in California since 1965.

But much more effective controls are urgently needed.

Present State law requires more effective devices beginning with 1970 models.

If the Federal Government completely preempts the field, this advance by my State will be nullified.

When the Senate Subcommittee on Air and Water Pollution visited Los Angeles, it was recommended that they do one of two things: First, either set the national standards for motor vehicle emissions at the level required for Los Angeles or, second, allow the State of California to establish standards more stringent than those for the rest of the Nation.

The other body wisely chose the second alternative.

But as reported to this House, Mr. Speaker, the bill would destroy California's initiative—and the progress it has made—in cleaning its own air.

The people of California want, and have earned, the right to set their own standards for control of motor vehicle emission.

Mr. Speaker, I urge my colleagues to recognize that right.

I urge the membership to support the amendment that will be offered by the gentleman from California [Mr. MOSS].

Mr. Speaker, I think it is very reasonable, also, to say that, in the past as in the present, whenever the Federal Government has given aid to States, they have always allowed the States to update or upgrade their pro-

grams. In other words the States always have retained the right to upgrade their own methods of problem solving. This has applied to education, poverty, and health programs and many others. It is very important that this principle be maintained and that the States reserve the right to upgrade their programs to meet the complex problems within their own borders.

Mr. REID of New York. Mr. Speaker, will the gentleman yield?

Mr. BELL. I yield to the gentleman.

Mr. REID of New York. Mr. Speaker, I commend the gentleman for the statement he is making with regard to California. I think it has equal applicability to New York. As the gentleman knows, at Thanksgiving of last year there was a serious thermal inversion affecting the New York City area. The statistics on that are relatively shocking, because there was a striking and severe increase experienced in death rates from arteriosclerotic heart disease. I would hope that no State would be prohibited from setting the highest possible standards and taking every appropriate action to save lives and prevent any deterioration in the health of our population that might result from these conditions. I hope both California and New York are free to do what is clearly indicated.

In a word, the legislation should be amended to permit States to effect more stringent standards where needed, and I understand that such an amendment is to be offered today.

In this connection, I am also disturbed that under the provisions of this bill as it has been brought to the floor, not more

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than 10 percent of the total funds appropriated or allocated for grants for support of air pollution planning and control programs under section 104(a) may be granted for programs in any one State. I would hope that it would be possible for the Secretary of Health, Education, and Welfare to approve grants in excess of that percentage when he determines that one or more air pollution control agencies is in critical need of such aid in light of the extent of its actual or potential air pollution problem.

The simple fact, Mr. Speaker, is that if we are to make meaningful headway in combating the awful menace of air pollution we must be willing to concentrate our efforts in those cities and regions where the need is critical. When factors of population, geography, industrial production, wind patterns, and other related elements combine to produce air pollution problems of the highest order of magnitude, we must be willing to meet these problems with assistance in excess of any predetermined limit.

Mr. BELL. I thank the gentleman for his comments.

Mr. SISK. Mr. Speaker, I urge the adoption of the resolution so that the committee may be permitted to discuss the bill before us.

Mr. Speaker, I move the previous question on the resolution.

The previous question was ordered.

The resolution was agreed to.

Mr. STAGGERS. Mr. Speaker, I move that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the bill (S. 780) to amend the Clean Air Act to authorize planning grants to air pollution control agencies; expand research provisions relating to fuels and vehicles; provide for interstate air pollution control agencies or commissions; authorize the establishment of air quality standards, and for other purposes.

The motion was agreed to.

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IN COMMITTEE OF THE WHOLE

Accordingly the House resolved itself into the Committee of the Whole House on the State of the Union for the consideration of the bill S. 780, with Mr. GALLAGHER in the chair.

The Clerk read the title of the bill.

By unanimous consent, the first reading of the bill was dispensed with.

The CHAIRMAN. Under the rule, the gentleman from West Virginia [Mr. STAGGERS] will be recognized for 1 hour and the gentleman from Illinois [Mr. SPRINGER] will be recognized for 1 hour. The Chair now recognizes the gentleman from West Virginia.

Mr. STAGGERS. Mr. Chairman, we have heard a great deal of discussion here about this bill, and particularly about one aspect of this bill. This is a very important bill to all America, and I am sure every Member of the Congress recognizes its importance.

As the gentleman from New York stated in regard to the incident that occurred in New York City to which some 40 to 80 deaths have been attributed, certainly New York is involved, and every other State in the Union is involved in this problem.

The bill we have before us today is designed to deal with a health problem which is serious today and which, unfortunately, is going to become more serious as time goes on.

Air pollution is a problem which has only come to nationwide attention in relatively recent years, although it has been a problem in isolated areas throughout history. It has been reported that the citizens of ancient Rome were troubled by the smoky air of that city. In England during the Middle Ages, the people of London were troubled by smoke, and it has been reported that during the 16th century, a man was executed in England for violating English law against the burning of soft coal.

Every civilization requires large amounts of energy, obtained primarily by burning fuels. Industrial processes give off byproducts, some of which are annoying, some obnoxious, and some hazardous to health.

Although many cities in the United States have had smoke-control ordinances for relatively long periods of time, there have been few, if any, controls on other forms of air pollution. We have now reached the point, however, where the disposal of the byproducts from the combustion of fuels and other industrial processes is beginning to adversely affect all of us.

It is unfortunate, but true, that a high level of prosperity and increasing amounts of air pollution have gone together. As we produce more and consume more, we have to dispose of byproducts, and the only places they can go are our rivers, our soil, and our air. As our prosperity has increased in recent years, the contaminants that have entered our atmosphere have increased, both in gross quantities and also in increased types.

There is a correlation between levels of air pollution and adverse effects on health and welfare. Testimony before our committee showed that there is a direct correspondence between increased death rates and increased rates of disability and disease and increased levels of pollutants in the atmosphere.

Occasionally weather conditions in the United States lead to greatly increased concentration of pollutants in specific areas. When a layer of warm air occurs above a layer of relatively cool air, this thermal inversion prevents pollutants placed in the air at lower levels from being dispersed and their concentrations increase. Thermal inversions occur over most of the United States. They occur with the greatest frequency in the Los Angeles area because of the geography of that area, and the pattern of pre-

vailing winds. These inversions also occur on the east coast of the United States, and although they occur with less frequency than is the case in the Los Angeles area, the east coast inversions usually cover a much greater area, sometimes extending from as far south as Georgia to as far north as Massachusetts.

During times of thermal inversion, as pollutant levels increase in the atmosphere, death rates go up. Occasionally, extremely severe inversions occur, and so-called air pollution disasters then take place. Such a disaster killed over 4,000 people in London in 1952. It has been estimated that as many as 250 excess deaths occurred in the New York City area during the thermal inversion in the winter of 1962. New York City and the surrounding area faced a potentially serious situation last Thanksgiving as the result of a thermal inversion, which led the mayor of that city to shut down the municipal incinerators for several days and to request that citizens voluntarily limit the amount of driving they did in the area.

We have reached a point now where our capacity to contaminate our environment is approaching our ability to control that contamination.

The Congress has been, since 1954, dealing with the problem of air pollution through legislation providing initially for research, then through subsequent amendments, for accelerated research and training programs, grants to the States and localities to aid in the establishment and maintenance of air pollution control programs, and in recent years through authority granted the Secretary of Health, Education, and Welfare to take action in specific cases to deal with individual air pollution problems.

The bill we have before us today is designed to provide a greatly strengthened, accelerated, and expanded program for the control of air pollution nationwide.

The testimony before our committee indicated clearly that a nationwide approach is necessary. All witnesses before the committee, whether they represented the Federal Government, State or local governments, industry, or private organizations were in unanimous agreement that further action is called for today. This bill is designed to provide that additional program aimed at cleaning up our Nation's air.

We held 2 weeks of hearings, and over 2 weeks of executive sessions considering this bill. We also had the benefit of the hearings held before the Senate committee this year, and after our committee's consideration, we reported to the House a bill which with the exception of one section, is unanimously supported by the committee. That one section has to do with the preemption of California's laws relating to motor vehicle emissions. In all other respects, as I said, our committee was unanimous in supporting this bill.

The bill establishes a program for the control of air pollution modeled in many respects upon the water pollution control legislation.

We had 8 days of hearings, and we heard witness from all over the land, from industry and from every segment of our society. We had 7 days of executive sessions in marking the bill up. I believe that the committee in its collective wisdom brought forth a good bill. It has been cut down on in appropriation authorizations by some $275 million below the Senate bill that was brought over to the House. It provides the exact funds asked in the budget by the administration.

For the fiscal year 1968, $99 million is authorized to be appropriated. For the year 1969, $145 million, and for the year 1970, $184 million.

The bill follows in general the Senate

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bill. We made several amendments to it. And as I say, I believe that we have brought a good bill to the floor.

Briefly stated, the bill provides that the Secretary of Health, Education, and Welfare shall establish air quality control regions throughout the United States. These regions are to be established so as to embrace areas sharing a common air pollution problem. The Secretary of Health, Education, and Welfare is required to issue air quality criteria which will be statements of scientific fact setting forth the effects on health and welfare which will occur as a result of various concentrations of pollutants in the air.

When these criteria are set, the Secretary will also recommend control measures which may be used to eliminate or minimize, to the extent feasible, pollutants of the type covered by the criteria.

When this information is furnished to the States, this will serve as the signal for the States to begin action. The States included within each control region established by the Secretary are given 90 days to file a letter of intent to establish a program to control pollutants which are the subject of the criteria and recommend control techniques; 180 days are then given for the State to determine the level of air quality which they will seek to obtain within the region in their State. Once this level of desired ambient air quality has been determined by the State, 6 months are given for the State to establish and set into operation a plan for achieving this level of ambient air quality. As a practical matter, this will mean control over individual sources of pollutants. Enforcement of these standards, both ambient air quality and individual emission, will be up to the States, acting under State law. In other words, to this point, this is a State program operating under State standards in accordance with State law and State procedures.

Where a State does not file a letter of intent, or does not establish ambient air standards which are adequate to protect public health, or does not adequately enforce standards established, the Secretary is given authority under the bill to perform these functions for the State; however, as a practical matter the authority of the Secretary is limited to control of interstate air pollution.

Where interstate pollution is involved, the Secretary may on his own motion request the Attorney General to go into Federal court and obtain necessary court orders for enforcement of standards. Where the pollution involved is solely intrastate, and this will very seldom happen because of the nature of air pollution problems, the Secretary may take action only upon the request of the Governor of the State affected.

We provided in the bill for the continuation of all the authority the Secretary presently has to deal with air pollution. Although some of the authorities are somewhat changed, nothing in the bill is intended to affect existing abatement proceedings, and the Secretary is authorized to continue them as well as the other programs he is conducting, such as research, aid to State and local programs, and the like.

The bill also provides emergency authority for the Secretary to deal with actual or threatened air pollution disasters, where the Secretary determines that there is an imminent danger to public health such as occurred in the Donora, Pa., area in 1948, where the death rate rose to 50 times normal during an air pollution disaster, the Secretary may obtain injunctions against polluters.

The Secretary explained during our hearings that this extraordinary power would be exercised very cautiously; that he expected State and local officials to establish systems of alerts and information to serve as a basis for action under this section if it ever proved necessary.

The committee made several changes in the bill. We deleted a section contained in the bill as passed by the Senate providing for the earmarking of funds for research into combustion byproducts of fuels. It was our feeling that existing authority in this area is adequate and that it was, therefore, not necessary to specifically earmark funds for this purpose. We also revised a provision of the bill dealing with preemption of State laws relating to motor vehicle exhaust controls. The bill specifically preempts State laws on this subject, but as passed by the Senate would have permitted a complete waiver of this preemption for the State of California. The majority of the committee felt that the overall national interests required uniform administration of controls on motor vehicle emissions, with special recognition given by the Secretary to the unique problems facing California as the result of numerous thermal inversions that occur within that State because of its geography and prevailing winds pattern. Because of the complexity involved in the manufacture of motor vehicles, uniform administration of the law in this regard, we felt, would lead to overall economies in the manufacture of automobiles. We, therefore, modified the Senate bill in this regard. I expect that this area of the bill will be more fully discussed later in the debate by other Members.

In summary, Mr. Chairman, we have a bill before the House today to deal with a serious national health and welfare problem. Unfortunately, our technology is not today at a level adequate to clean up our Nation's air. Even if we had completely unlimited amounts of money to do the job with, we do not have the technology available to accomplish the job, but it will be accomplished. This bill is designed to establish a program to deal with air pollution on a nationwide basis, to provide for cleaning up the air the best we can today, and to do an even better job in the future, through increased research and through increased controls today.

Our committee has thoroughly considered the problem and with the exception of the preemption question, we unanimously recommend favorable action by the Committee.

Now we, as I said, considered the bill very carefully and heard all of the witnesses. I think we have come out with a good bill and a bill that is essential to the country.

There has been talk of undue pressures that have been placed. I do not know where any pressures have come from. No pressure has been put on me and I do not know any member of the committee that has had any pressure put on.

The committee acted in their wisdom and each member has done what he thinks is best for the Nation.

I want to go back to some other problems just briefly.

We have said that there should be two studies made—one with reference to aircraft emissions in this country —and to report back to the Congress as to what should be done. This affects every State in the Nation. I know every State wants to be included in that.

We have also asked that a study be made on national emission standards and that a report be made back to the Congress so that they may be put into operation if needed. The study will determine which standards should prevail over the entire country according to each pollutant that is in

the air and how much of each pollutant should be allowed regardless of any regional setup that we have.

These two studies are to be made and are to be brought back as I say so that we can determine our further course of action along these lines. This bill is not the last word on air pollution and it could not possibly be. This is a new field. The Federal Government and the State governments are groping for what is needed and they are trying to do their best.

As to the preemption question involving California, I heard several Members say that we are trying to take something away from them. We are not trying to do that. We recognize that California has a special problem and we have dealt with that and said, "You have a special problem and we want to take care of it if it is necessary." And the bill provides an avenue to take care of that problem.

But the fact is, remember, California is only one of the 50 States of the Union—and they do participate in air pollution control in different ways and they will participate in all the programs under this bill.

They will get Federal moneys for their air pollution programs. We feel, however, that auto emissions are also a national problem that should be dealt with under one head and under one jurisdiction. We did make special provision that if they needed more stringent motor vehicle standards, they would be allowed to have them.

I say again, that is the intent of this committee. If the Secretary of Health, Education, and Welfare can hear me now and if he cannot hear me, he can read my words—I say it is the intention of this committee to do just that.

Mr. POFF. Mr. Chairman, will the gentleman yield?

Mr. STAGGERS. I yield to the gentleman from Virginia.

Mr. POFF. Mr. Chairman, I hate to divert the debate into a less glamorous channel, but I think it is necessary, if I am to avoid offering an amendment to the bill, to write a little legislative history. If I may direct these questions to the distinguished gentleman from West Virginia and the distinguished gentle-

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man from Illinois, I think it may be possible to obviate an amendment.

As the gentleman knows, the present law, which was first enacted in 1963, in section 102, subsection (c), states that Congress grants—what was really not necessary to grant—its consent to the States to enter into compacts. In the same paragraph the Congress reserved something not necessary for it to reserve: the right to pass upon compacts before they become binding upon the States.

In the Senate bill, there appears the same language that is present in the law as it now stands. The House Committee on Interstate and Foreign Commerce, in striking all after the enacting clause, automatically struck that language. When it added new language, it omitted the language of the present law.

I feel that since the Constitution in article I, section 10, provides clearly that the Congress must pass upon compacts between the States before they become obligatory, there is no reason that a court might interpret the committee bill otherwise. But out of an abundance of caution, I believe that inasmuch as this provision was once originally in the law and now by the action of the committee has been extirpated from the law, it would be advisable to make clear the legislative intent not in any way to impair the right of Congress, under article I, to pass upon the air-pollution compacts between States already entered into nor in any way impair the

right to modify or, if necessary, to repeal consent granted to compacts already entered into.

Speaking for the majority, is it the intent of the gentleman from West Virginia that these powers of the Congress be preserved?

Mr. STAGGERS. It certainly is. The provision to which the gentleman has referred is in the Constitution, and this language in the law is repetitious. I do not see that the bill would affect any compact that has been in effect or that will come up in the future, because this is a matter that is provided for in the Constitution.

Mr. POFF. I understand the gentleman to say that it shall not be inferred that we are granting in future ratification of, or blanket consent to, any compacts that may hereafter be made.

Mr. STAGGERS. That is correct. The consent of Congress is still necessary.

Mr. POFF. By eliminating the present unnecessary provision from the law, I understand the situation to revert to the status quo ante; is that correct?

Mr. STAGGERS. Yes, it is. The slate is wiped clean, and the constitutional requirement of congressional consent still obtains.

Mr. POFF. I understand the gentleman further to say that the Congress shall not be considered to have relinquished its right either to grant or refuse consent to air-pollution compacts hereinafter entered into or, where consent has been given, to modify or, if necessary, repeal the consent.

Mr. STAGGERS. Certainly not. We feel that this is provided for in the Constitution.

Mr. POFF. I thank the gentleman. Will the gentleman yield to the gentleman from Illinois, of whom I would like to ask the same questions?

Mr. STAGGERS. I yield to the gentleman from Illinois.

Mr. SPRINGER. I think the gentleman from West Virginia has stated sound constitutional law. At no place in this legislation have we attempted either to contravene or modify the constitutional law which he has so well stated here on the floor now. Nor at any time have we sought to give blanket consent to compacts —past, present, or future. The right of Congress to pass on each compact individually is retained.

Mr. POFF. If the gentleman will yield further, I might say the responses satisfy my purposes, and I shall not offer the amendment. I thank the gentlemen.

Mr. STAGGERS. Mr. Chairman, I reserve the balance of my time.

Mr. SPRINGER. Mr. Chairman, I yield myself 15 minutes.

Mr. Chairman, preliminary to discussing the Air Quality Act now before the House it might be of interest to the Members to review briefly the history of air pollution legislation. It occurred to me that we have had legislation before us practically every year of late. This led me to look into our activities in this area over the period of the last 12 years.

The first air pollution bill which recognized the problem for what it is passed this House in 1955 at the request of the administration and was presented to us by a special message from President Eisenhower. It provided for research and technical assistance to States and localities. Since that day a great deal of research has taken place, and there is a great deal yet to do. The hearings on the present legislation suggest that much research legislation suggest that much research is still necessary before practical abatement programs will bear fruit.

During the next 3 years after the legislation I have just referred to,

the Committee on Interstate and Foreign Commerce studied the problem and held several hearings and in 1959 extended the program then in existence. During this same period the problem of automobile exhausts and the air pollution caused thereby had come to the attention of the committee, but here again too little was known about causes and effects to take action.

In 1960 the House authorized a research program on automobile exhausts and the pollution problems connected therewith. In 1962 a report was rendered to the Congress and the research on automobiles was extended.

Nineteen hundred and sixty-three marked the beginning of air pollution legislation as we know it today. It was the first attempt at writing general provisions for control and abatement of air pollution through State and local control agencies assisted by the Federal Government. It was also the first time that we recognized as a congressional concern the air pollution problems caused by Federal installations. Research into all phases of air pollution was encouraged and funds were provided to assist State and local governments in organizing air pollution control agencies. Funds also were provided to assist in the cost of establishing local agencies and also intercommunity or regional agencies. The bill before us today, S. 780, is basically an extension of the format and the principles set forth in the 1963 legislation.

In 1965, however, the Congress did grant to the Department of Health, Education, and Welfare the authority to prescribe emission standards for automobiles.

Last year, 1966, the Congress consolidated the various authorizations for research and abatement and added grants to help operate control agencies as well as establish them.

The role of the Federal Government in enforcement has changed considerably in the various pieces of legislation passed beginning in 1963. At first there was no provision for Federal enforcement in any event. Later we provided for enforcement through actions of the Attorney General at the request of a Governor. The funds provided by these various pieces of legislation I will discuss later.

In the Air Quality Act of 1967 which is now before us for consideration, we have, for the first time, sorted out the appropriate roles for the Federal agencies and State and local agencies. I will try to describe in as simple terms as possible what I think we are doing in this regard. I will probably oversimplify because the terms and the provisions of this legislation are necessarily complex. The committee, having the advantage of hearing witnesses and conferring with all the experts, found it rather difficult to keep all of the concepts clearly separated.

First I will try to describe my understanding of the role to be played by the Federal Government in air pollution control and abatement under the terms of S. 780. The Department of Health, Education, and Welfare had been instructed some years ago to gather scientific data relating to various pollutants and publish them for the benefit of all concerned. So far the Department has completed the work and published a treatise on one of the major pollutants—the sulfur oxides. There are eight or 10 other such efforts yet to come forth. As each of these studies is published, all of those which preceded it will necessarily be reviewed because of the fact that air pollutants interact among themselves.

These scientific findings are known as air pollution criteria. They describe the scientific and health effects of the pollutants on man and on plants when

found in the air in various concentrations. They are not rules to be enforced but merely information to be used as the basis for determining and enforcing air standards.

It will also be the duty of the Federal Government to study and recommend devices and procedures which might be used to abate successfully the pollution caused by various systems.

One other thing will be done by the Federal Government in normal situations. It will designate air quality regions based upon the developing knowledge of the airsheds in our country. Those designations will be based upon meteorological and geographical data to set out and delineate areas having common air pollution problems and possible common pollutions.

Once all of these things have been done

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by the Federal Government, it will devolve upon the States, using this information, to set air quality standards. Here we are talking about something that is often called ambient air standards. This means a determination of how much of what pollutants can be and should be allowed in the air over a large area. It is then the yardstick for measuring the efforts to abate air pollution.

In order to maintain ambient air standards it will obviously be necessary for the State and in many cases local governments to specify what must be done by individual industries and individual localities to maintain this standard. Here we encounter the term "emission standards." In any event, it becomes the duty of the Governor to carry forth such a program. There are many steps involved and many instances calling for consultation with industry and various governmental units, but the ultimate aim is to minimize pollution and maintain the air standards found to be desirable.

Again oversimplifying, there are fairly complicated procedures to be used in the event a Governor will not carry out a program within his own State. There being no other answer to such a problem, the Federal Government will step in and do what must be done to set and enforce air quality standards for the protection of the people within that State and particularly for the protection of people in surrounding areas. There are safeguards in the way of administrative procedure, advice and consultations and court review.

At this point I would like to refer back to the 1963 and 1966 laws. Many States and many local governments have created individual or joint agencies for the control and abatement of air pollution. There is some concern among them about whether the machinery in S. 780 will make it necessary to eliminate these and start over again. As a matter of fact, the legislation is designed to make use of those agencies already operating, and it is anticipated that they will remain in business.

Separate and apart from the problem of ambient air standards as they apply to stationary sources of emissions, we have the troublesome concept of standards for motor vehicles. You will recall that 2 years ago the Federal Government was given authority to determine standards for automobile emissions. It was well understood at that time that the technology available did not permit ideal standards but that standards could be set within the realities of present knowledge. It is certainly to be hoped that new and better devices to control automobile emissions will be forthcoming rapidly and tnat internal combustion engines and jet engines will be perfected to the point where

dangerous pollutants will somehow be consumed and not cast into the air.

The 1967 act did not make at all clear whether the standards set by the Federal Government would be the only standards although the law could very well be interpreted in that manner. The purpose of including a provision on motor vehicle standards in S. 780 is to clarify that particular point. It is not possible from an economic point of view to build automobiles to 50 different standards. Even if this were so, it is very unrealistic since automobiles necessarily travel from State to State. It is only sensible to have one national standard.

One possible exception to that principle is the State of California. The State has pioneered in that area because its problem is and has been so much more acute than in any other part of the country. California anticipates that it may wish to make its standards even more stringent in the years ahead. Because of that the other body in reporting out S. 780 made an exception in the case of California which would allow that State to administer its own vehicle emission program.

Our committee felt that although California does have a special problem and may very likely need separate standards for this purpose, overall national administration of vehicle emission standards is desirable. It was on this basis that an amendment was offered and adopted to provide for special standards for California only if that State makes a showing of necessity for such standards. Once these different standards are created, the Department of Health, Education, and Welfare will administer them as in all other cases. It is interesting to note that as of this particular time the standards issued by the Federal Government are the same as those in existence in California. It is possible, and I think not unlikely, that the Federal standards may advance as rapidly as those felt necessary by Californians, in which case there would be no need whatsoever for completely separate systems of administration.

The bill which reached our committee had some very elaborate and expensive provisions for research. The law as it now stands provides broad authority for research into all phases of air pollution and the ways to combat air pollution. The bill before the House this afternoon provides plenty of money, not earmarked, to carry this out.

I have not found the administration to be stingy in its requests for research or other funds, and I am well satisfied that the amounts remaining for research are at least adequate and may in fact be very generous.

The funds authorized by S. 780 are an additional $33 million for the present fiscal year—which is well underway—for a total of $99 million to be spent overall during fiscal year 1968. The 1966 law had authorized the sum of $66 million for fiscal year 1968, and we are raising that now to $99 million. Also in the previous legislation we authorized a sum of $74 million for fiscal year 1969. This present legislation raises that sum to $145 million. S. 780 authorizes for fiscal year 1970, $184.3 million. These are the exact amounts requested by the administration for air pollution research, control and abatement.

These are large sums of money. I am given to wonder why the estimates of only a year ago were so inadequate. If the money is well spent, it is worth the price. It will be interesting to see, however, how accurate these new estimates will turn out to be.

Because this legislation is the first comprehensive bill to tackle the air pollution problems and the continuing relationships between Federal and other governmental entities, it is a

most important bill. The machinery set up is in some ways a compromise but then that is true of most legislation which comes before this House and it is usually for the best that this is so. I feel that the various interests are well represented in the procedures that we have provided. The Federal Government cannot completely dominate the field and it should not. States cannot go it alone regardless of the effects in other areas. Industry can and will be heard on the very practical problems connected with abatement. All in all this would seem to be a workable scheme.

Mr. HOLIFIELD. Mr. Chairman, will the gentleman yield?

Mr. SPRINGER. I yield to my distinguished colleague from California.

Mr. HOLIFIELD. I thank the gentleman for yielding.

I was at the point, I believe, where I asked him to yield when he mentioned the fact that this bill would adopt the California standards.

Mr. SPRINGER. I do not believe I said it that way. What I said was that at this point in history the national standards and the California standards are identical. If that means the same thing, then it is the same.

Mr. HOLIFIELD. I think that means the same thing to me. I would be the first to admit, and I would call to the gentleman's attention, if I may, that we have spent hundreds of millions of dollars in developing the standards to the point and developing the devices to the point where we have developed them, but they are not satisfactory in California. They will be more than satisfactory in many of the States of the Nation, particularly in the Great Plains States where you have a free flow of air, but in California we found out they are inadequate, because the devices are around 40 or 50 percent effective in certain areas and because of a 600,000 accretion of new automobiles registered in California this year and the pollution that they emit from their tailpipes, the overall quantity of pollution does not go down. Therefore, we seek more efficient devices. What we want to do is go forward and have these devices perfected I know that there is an administrative provision in the bill, but you change certain vital words in the House bill, which disturbs us in California. The words that are changed in the Murphy amendment are that "the Secretary shall approve more stringent standards" under certain situations.

The wording in the so-called Dingell amendment says "he may, if he finds," certain things.

Now, very frankly—I want to be frank on this—we feel that in California we have hundreds of experts who have developed a great deal of expertise in this field because of the urgent problem we have had, not because they are any smarter, but because We know that the

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present national standards that will be adopted in this bill are not adequate to take care of our problem, because of the buildup of the automobile inventory.

The CHAIRMAN pro tempore (Mr. MUCINSKI). The time of the gentleman has expired.

Mr. SPRINGER. Mr. Chairman, I yield myself 1 additional minute.

Mr. HOLIFIELD. Mr. Chairman, will the gentleman yield?

Mr. SPRINGER. I yield further to the gentleman.

Mr. HOLIFIELD. All we are asking to do is to let California conform to the Federal standards, and go beyond them because of our peculiar situation. We will pay for devices, we will pay for the difference, and we are paying for it now; 7.8 million cars have those devices in them, by the law

of California, and our people are paying up to $55 each for them on the assembly; they are priced with the car along with air conditioning and extra grade tires. All we are asking is to let us solve our problem at our expense. It will not hurt anyone in the other 49 States, it will help them, in fact, because if we develop new standards and better standards, and we have been improving in our standards all along, then someday some other State or States that develop the same sort of affliction we have may also want to so improve their standards to the point where we have improved on ours. The automobile industry has agreed that they will install devices on buses and trucks in 1969 and on passenger cars in 1970, devices that are far more efficient than these that are set up in the standards of the Dingell bill.

The CHAIRMAN pro tempore. The time of the gentleman has again expired.

Mr. SPRINGER. Mr. Chairman, I yield 1 additional minute to myself.

Mr. Chairman, I may reply to the gentleman by saying that I believe there is a difference of opinion between what the committee brought forth and what the gentleman from California is saying, and that it was the feeling of the committee that if California went before the Administrator and proved its need and justified a difference that he would grant it.

Now, what California is saying is: "We want something different from any other State. We want a right that nobody else will have, to do something which can be also done in an orderly procedure by filing a petition with the Administrator of the program." I am sure they recognize that.

There will be a letter introduced a little later on from HEW in which it recognizes that California has a special problem, and they will work with California. That is the position of the committee.

Mr. HOLIFIELD. Mr. Chairman, if the gentleman will yield further——

Mr. SPRINGER. I do not have any more time. I believe the gentleman has had a chance to pretty well explain his position.

The CHAIRMAN pro tempore. The time of the gentleman has again expired.

Mr. ROGERS of Florida. Mr. Chairman, I yield such time as he may consume to the gentleman from Florida [Mr. HERLONG].

Mr. HERLONG. Mr. Chairman, I support the committee fully on this bill.

Mr. Chairman, a lot will be said and has been said about the amendment to section 208(b) adopted by the House Interstate and Foreign Commerce Committee, an amendment which relates to the treatment to be accorded the photochemical smog problem in California. The House committee version provides that the Secretary of Health, Education, and Welfare may, upon an appropriate showing by the State of California, prescribe automotive emission standards which are more strict than those otherwise applicable throughout the United States. By contrast, a Senate provision would require the Secretary of Health, Education, and Welfare to waive the Federal preemption clause in order that California may set its own standards and administer its own program unless the Secretary is able to establish that California does not satisfy certain conditions. These are conditions specially tailored for California which California clearly meets. Thus, the practical impact of the Senate amendment would be to mandate the Secretary of Health, Education, and Welfare to exempt the State of California from the national automotive emissions control program so

it can operate its own program independently of the national program. In effect, the Senate version would maintain two often competing bureaucracies, one for California and one for the other 49 States.

The House provision, on the other hand, consistent with the decision of the Congress in the Clean Air Act Amendments of 1965 to establish a nationwide automotive emissions standards program, centralizes the authority for setting and administering both the national and California standards in the Secretary of Health, Education, and Welfare. Under this provision, the State of California would be required only to prove to the satisfaction of the Secretary the very conditions which the Senate provision would require the Secretary to establish. If California can establish those conditions, and there is no doubt in my mind that California can, then the Secretary will proceed to set more stringent standards for California than are applicable nationally and California's photochemical smog needs will be met.

In my judgment, the House committee version is superior to the Senate language. California's particular problem is that of photochemical smog, the constituent components of which are hydrocarbons and nitrogen oxide. However, the total program for control of automotive emissions is expected to include the control of many other pollutants including carbon monoxide, lead, and particulate matters. If the Senate provision is adopted, and the Secretary required to exempt the State of California from the national program, several serious questions arise. First of all, is the exemption for California a blanket exemption which would enable the State of California to set standards for pollutants other than the constituent elements of photochemical smog? Moreover, if the Federal standards for hydrocarbons are at the same level as the California standards—as they are today—would the Secretary be able to withdraw the exemption once it has been granted? In short, once the exemption has been granted, does it exist in perpetuity or until the statute is changed by the Congress? Also, does Congress possess the authority to preempt 49 States from setting and administering automotive emission standards and, at the same time, preserve the right of the 50th State to proceed independently of Federal supervision and direction?

Mr. Chairman, it is abundantly clear to me that the State of California, in supporting the Senate approach, is basically seeking an amendment which would give that State the right to establish a separate program without regard to the national program. This is not a matter of States rights—it is a request for unwarranted preferential treatment. I see no necessity for the Congress to go this far in meeting the California problem. Moreover, I can see that an independently administered State program would wreak havoc with the production of automobiles if, as is likely, inconsistencies develop in the administration of the California and national programs. Moreover, such inconsistencies inevitably translate into additional costs which would in all likelihood be passed on to consumers throughout the United States.

In my judgment, the sensible way to proceed would be to do as the House committee bill does—that is, vest the authority in the Secretary of Health, Education, and Welfare to set and administer separate standards for the State of California. Such centralized administration would avoid costly inconsistencies in testing procedures, evaluation of test data, certification procedures, and other enforcement requirements which all experience teaches are likely to result where

responsibility is divided. Moreover, if the conditions which now require separate standards are corrected, or the technology advances so that the industry can meet California's needs on a national basis, there will be no problem of having to ask the Congress to reclaim Federal jurisdiction from the State of California.

Mr. Chairman, I support the House committee bill.

Mr. ROGERS of Florida. Mr. Chairman, I yield 5 minutes to the gentleman from California [Mr. ROYBAL].

Mr. ROYBAL. Mr. Chairman, I thank the gentleman for yielding.

Mr. HOLIFIELD. Mr. Chairman, will the gentleman yield?

Mr. ROYBAL. I yield to the gentleman from California.

Mr. HOLIFIELD. Mr. Chairman, I thank the gentleman for yielding.

The point that I wish to make in connection with the remarks of the gentleman from Illinois [Mr. SPRINGER] is in connection with the administrative procedure. In California we believe that we have more expertise in this field than they have down at the Department of Health, Education, and Welfare, and we feel that there are certain dangers in the Administrative Procedures Act. In appealing from a decision of the Secretary of Health, Education, and Welfare, we would have to appeal under the Administrative Procedure Act.

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I hope the gentleman from Illinois will give me his attention, because I am replying to his statement.

We would have to be bound by an administrative decision. The administrative decision under the Administrative Procedure Act rests upon the latitude of judgment of the Administrator, not on the merits of the case. If he has made a decision within the latitude of administrative judgment, whether it is right or wrong we are bound with it.

Now, I have gone through this, and the gentleman from California [Mr. MOSS] has gone through it with 4 years of committee hearings on administrative action by the Home Loan Bank Board, when the Home Loan Bank Board seized without justification the Long Beach Savings & Loan, and the Long Beach Savings & Loan people tried to get into the courts to have a decision on the merits of the case.

They were not permitted to go into the courts because they had not exhausted the procedures under the Administrative Procedures Act. If they had exhausted them, all they had to do then was to go back to the very Administrator that made the decision to seize their institution and he would confirm his original act and deny the appeal. They never would get a chance to have a decision based on the merits of their case. This was in litigation for 16 years. Three committees of the House—the committee of which our former colleague, the gentlemen from Virginia, Howard Smith, was chairman, a committee in 1951 and 1952 under my chairmanship, and a committee later on under the chairmanship of our colleague, the gentleman from California [Mr. MOSS]—for 6 years we held hearings and tried to correct an administrative decision, and we could not do it because we were up against this principle as enunciated.

This is why, knowing the facts as they are in California, we seek an exemption from this Federal standard limitation—not to violate or to go below Federal standards or to have inferior standards but to take care of our particular problem and to go above those Federal standards. We would like to have it written into the law. Of course, if we cannot get this decision by law, then we will have

to go to the Administrative Procedures Act and we will have to take our chances under the situation as I have described.

This is why we are making this fight. I am not pointing my finger at the present Secretary of Health, Education, and Welfare or at any other Secretary of Health, Education, and Welfare, whoever it might happen to be, but I am pointing out the fact of the dangers of an administrative decision which we might face and which is vital to the health of every individual in California.

We can have purity if we can evolve better devices and better standards than are necessary nationally—even though they cost a little bit more or even though they cost not $40 or $50 but $100. Our people are willing to pay the cost. We are not asking the Federal Government to pay the cost. The people of our State are glad to pay if we decide it is necessary for the health of the people of our State. Why do you not give us this additional power to do what we know will be necessary? We already have an agreement with the automobile manufacturers on trucks and buses for the year 1969. We have an agreement with them on automobiles as to the year 1970. These agreements have been arrived at by negotiation—and that will go out the window under this bill as now written. The auto manufacturers can just say goodby, so far as we are concerned in the State, and our police powers to get them to put on better devices will be gone unless we can convince someone in Washington.

I do not know what person might be in office, whether it is the present individual or somebody else, but I would like to see the amendment that was put in in the Senate by a vote of 88 to 0, put in this bill so that we would be guaranteed this right that we think we should have.

Mr. ROYBAL. Mr. Chairman, I would like to say that this is the longest speech I have made on the floor of this House.

The CHAIRMAN. The time of the gentleman from California [Mr. ROYBAL] has expired.

Mr. SPRINGER. Mr. Chairman, I ask unanimous consent that the gentleman from Nebraska [Mr. CUNNINGHAM] may insert his remarks in the RECORD immediately following the remarks of the gentleman from Michigan [Mr. HARVEY].

The CHAIRMAN. Without objection, it is so ordered.

There was no objection.

Mr. SPRINGER. Mr. Chairman, I yield 5 minutes to the gentleman from Michigan [Mr. HARVEY].

Mr. HARVEY. Mr. Chairman, I want to speak for just a minute on these auto emission standards that we have heard so much about and attempt to straighten out, if I can, what I consider to be three very basic misunderstandings with regard to these standards.

First of all, I have heard it said in the last week here that the automobile industry which hails from Michigan—and it does not all come from Michigan—but the automobile industry was trying to force a single standard upon all the people in America when the people of California wanted even more stringent standards.

Believe me, nothing could be further from the truth.

If you will look at the hearings on page 484, I would refer you to the testimony there of Mr. Mann, who represented the Automobile Manufacturers Association. I will confess that I was trying, perhaps, to put words into his mouth when I asked him this question at the time. I said:

From listening to your statement, do I gather correctly that if the automobile industry had its choice, forgetting what the other body might do over there, but if the automobile industry had its choice, they would prefer uni-

form national standards in this regard applicable to all States?

Mr. MANN. From our point of view, Mr. Congressman, it would make life much simpler but from the point of view of the national interests I must say to you in all candor that I believe we all might regret it if we did not provide in some way for the special problem in California.

This is what we have tried to do.

This is what the auto industry has tried to do. Anyone who would have you to believe otherwise, that the bill as it came out of the House committee does not provide that is just misrepresenting the situation.

There is another very serious misunderstanding with regard to the bill as it comes out of the House. This is the statement that I have heard over and over again that the House version of the bill, as opposed to the Senate bill, would prevent the application of these special and more stringent standards in California. That simply is not true. Either the Senate bill, as it was originally passed, or the bill as it comes out of the House right now, recognizes California as a special example, as a single State only that can take advantage of these more stringent requirements and that can seek and apply them.

Section 208(b) of the House bill clearly authorizes the Secretary of Health, Education, and Welfare to set any standard required by public interest in California. Surely California can show "compelling and extraordinary conditions" that are required there. Surely, regardless of where the Secretary of Health, Education, and Welfare comes from, Californians should have faith that he will recognize these compelling and extraordinary conditions that even the auto industry has set forth in their testimony.

No one has come in and said that these conditions do not exist.

I would point out to you that whether you look at the version of the bill that came over from the Senate with the Murphy amendment, or whether you look at the version of the bill that the House reported out, both of them require a hearing by the Secretary of Health, Education, and Welfare. He cannot act without a hearing. Both of them would permit the State of California to have more stringent requirements. There is no difference whatsoever.

Let me tell you that there is a real difference in the decision as to whether this House wants right here and now to have two administrations or two bureaucracies administering these standards rather than just one. I say to you that certainly you can do what you can under this Senate bill; you can do it under the House bill. I have the utmost faith and confidence that the Secretary of Health, Education, and Welfare would call a hearing as required and do it.

There is another misrepresentation —I will not say a "misrepresentation," but there is a misunderstanding about this particular bill. I have heard it said now, all of a sudden, we should not come in here and preempt State standards. Let me tell you that anyone who thinks we are for the first time moving to preempt State standards just was not here in 1965, because that is when this House moved to preempt the State standards. If you do not believe that, I refer you back to the report that was put out in 1965 or, better yet, I refer you to the paragraph here on page 20 of the Report of this Air Quality Act of this year where we repeat what we said then:

The committee is convinced that motor vehicle exhaust control standards on a national scale are necessary and would be of benefit to the entire country. * * * While the committee is cognizant of the basic

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rights and responsibilities of the States for control of air pollution, it is apparent that the establishment of Federal standards applicable

to motor vehicle emissions is preferable to regulation by individual States.

We recognized then that there were more than 100 different bills introduced in various State legislatures setting up different standards. You just cannot possibly have, what I heard said earlier here, States rights and mass production in this particular regard.

Finally, I would point out to the House the answer to the question as to why a single administration of the standards is important.

I would say again, look at the testimony of Mr. Thomas Mann, representing the auto industry and this again was not contradicted. No witnesses came in to say otherwise.

Why is a single administration so important? Let me quote from my own argument, and this is on page 482 of the hearings:

The process of fixing and administering emission standards for new cars is at best a complex one. Judgments must be made, often on the basis of incomplete scientific evidence, on the question of which pollutants endanger health and welfare and at what levels it is technologically and economically feasible to fix emission rates.

In a program of this kind many questions arise. What are the requirements for testing new vehicles as they are produced each year? Precisely how are the tests to be performed and under what conditions? What are the rules for interpreting the scientific data developed in the testing process?

All we are asking is that if we are going to have different standards—which everybody recognizes, because both the Senate and the House bills contain different standards—all we are asking is that we have the same umpire enforce the rules, that we have one fellow or one administration that is going to interpret the regulations, one administration that will say what laws are applicable and how they will be administered.

It is bad enough to have two standards, because we do have 50 States that are united, but we do recognize this problem of California. But this is not only doubling but compounding the problem when we go beyond that and say we will have not only two standards but two different administrations to interpret and administer those standards.

This is creating bureaucracy at its worst. I want no part of it whatsoever. I hope the House will support the House Interstate Commerce Committee version of the bill.

Mr. TAFT. Mr. Chairman, will the gentleman yield?

Mr. HARVEY. I yield to the gentleman.

Mr. TAFT. Mr. Chairman, I wish to subscribe to the views on S. 780 expressed by the ranking member of the committee, the gentleman from Illinois [Mr. SPRINGER].

This measure represents a very great and needed improvement over the present Clean Air Act, enacted in 1965. The principal areas of improvement lie in the additional attention to research and in putting initial responsibility on the States to move before Federal enforcement procedures come into play. It should be noted that the bill as reported by the committee incorporates the suggestions of the recent report of the Republican coordinating committee and the recommendations set out therein. That report was recently printed in the CONGRESSIONAL RECORD on October 24, at page 29755 at the request of the Senator from New York [Mr. JAVITS].

The report advocated five principles, most of which are included in the committee bill as reported on the floor of the House. These principles call for eliminating gaps of our knowledge in technical capability through additional research, for emphasizing regional agreements among State and local governments in the control of air pollution, for needed economic analysis of the results of air pollution control and of the pollution itself,

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for tax benefits for controlling pollution, and for cleaning up air pollution from Federal installations.

While the tax approach has not been taken in this legislation, it is hoped that some time in the near future, we may be able to consider that approach as well.

It should be noted that the present Clean Air Act includes certain provisions as to evidence under section 105(g), which would still come under section 107(h) under the bill. The provisions involve the use of reports that possible offenders have been required to file in earlier proceedings.

Whether this transcends proper constitutional limits involving the right against self-incrimination, is something that should be studied carefully as the procedures on the present law and amendments by this bill develop.

Mr. CUNNINGHAM. Mr. Chairman, I have been a strong proponent of clean air and I strongly support S. 780, the Air Quality Act of 1967. I have long been interested in this problem. During the time that I was mayor of the city of Omaha we enacted the first effective legislation to clean our air of pollutants. As mayor I assembled a very capable staff to carry out the legislation which I sponsored and there was a tremendous difference in the cleanliness of our air in Omaha as a result of this very effective program.

Our program, however, at that time was aimed primarily at belching smokestacks and other industrial emissions. I might add that there is absolutely no excuse for a smokestack to belch smoke. If it does, it means that the incinerator and/or the burning unit, whether it be in a plant or in a home, is not operated correctly or efficiently. By operating a heating unit and/or an incinerator in an industrial plant efficiently the smokestacks will not produce black, sooty smoke.

However, this act is much broader, as it should be, and takes into consideration many other problems that confront us today, and I am hopeful that the day will sometime come when we can walk our streets without breathing toxic and polluted air. Automobile exhausts are a major pollutant, and with the fine cooperation of the automobile industry and the operators of vehicles larger than the ordinary passenger car, I am hopeful that we can sometime soon feel free to breathe good, fresh air, which we all know is so valuable to our health and the length of our lives. I would also be hopeful that truck and bus owners and operators might recognize the problem and give their serious attention and assistance to its solution. It would seem to me that they would want to do this, not only as a public relations gesture, but because they, too, are interested in the health of our people.

It is for these and many other reasons that I strongly endorse this legislation and I am pleased to have been a member of the Committee on Interstate and Foreign Commerce that brought this bill to the floor.

Mr. STAGGERS. Mr. Chairman, I yield 5 minutes to the gentleman from California [Mr. MOSS].

Mr. MOSS. Mr. Chairman, I take this time to make it very clear that I do not now question, nor have I questioned, the motives of a single Member of this House or of the Interstate and Foreign Commerce Committee. I have been privileged to serve for a full decade as a member of the Committee on Interstate and Foreign Commerce, and I have served on that committee with great pride. That pride is as strong today as at any time during my service.

It is a committee which deals with difficult and complex problems, and I think every member of it approaches those problems with a full understand-

ing of the responsibility he bears as a part of that committee.

Inevitably, we are going to have areas of disagreement. I think they should be objectively reviewed and dealt with on their merits. That is what I ask each member of this Committee to do today.

There are substantive differences in the committee as to the approach which should be used in granting an exemption to my State of California —which incidentally is the second largest assembler of automobiles in this Nation and the largest consumer of automobiles in this Nation. Those are not inconsequential differences.

The gentleman from Michigan [Mr. HARVEY] said that under either the language of the distinguished junior Senator from California or the language of the gentleman from Michigan my State would have an avenue for exemption. But under the language of the gentleman from Michigan, the entire burden is on my State, and the Secretary is vested with the power to veto the requests of the State.

The distinguished ranking minority member said that air pollution was not new on this floor—and I quote him: "Air pollution goes back to 1955." He then mentioned the request made by then President Eisenhower. I might say to members of this Committee that in my State of California the air pollution consideration goes back at least a decade earlier. I recall 19 years ago, as a member of the Assembly of the State of California, voting appropriations for research into the causes of pollution which were then plaguing—and plaguing very drastically—the southern portion of

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California. It is because of that action that my State has been the leader and has developed the basic technology in devising means of dealing with this problem. I feel it should be permitted to continue to assert its initiative and its leadership.

This is not at a cost to the Federal Government. The overwhelming portion of the cost has been borne by the taxpayers and by the consumers of California, and willingly borne, I might add.

Under the restoration of the language, which I will propose under the 5-minute rule, there is offered to this Nation the ideal laboratory, where the demonstrated initiative exists and where the resources exist to solve this problem and contribute significantly to the entire Nation. I believe we should take advantage of this unique opportunity.

It is not going to impose a burden.

Let me point out one fact. If the automobile industry could find a market outside the United States that even provided half the volume of the California market they would willingly make any modification required in order to enter that market.

Our request is not unreasonable. It is not unprecedented. It is a just request. I ask it be considered on its merits.

Mr. SPRINGER. Mr. Chairman, I yield 3 minutes to the gentleman from Ohio [Mr. BROWN].

Mr. BROWN of Ohio. Mr. Chairman, a public opinion survey published in the Washington Post in April of this year revealed an attitude on the part of the American people that is apropos to our discussion on the Air Quality Act today.

Titled "Public Mandate of Domestic Programs," the poll has been quoted often by our colleagues because it offers a vivid insight into public sentiment regarding Federal domestic programs.

The probe of what the poll called a "carefully drawn cross section of the adult population" asked the participants to categorize certain programs under three headings: "Expand,"

"Keep as is." or "Want cutback." Leading the list of programs which those polled said should be expanded were those to curb air pollution and water pollution. In these two areas, 50 percent of the respondents wanted the programs expanded.

In an information report, another famous poll claims:

> In some urban areas, recent surveys show that public concern about pollution is pushing toward the crisis stage.

Mr. Chairman, there is little doubt that the American people recognize and regret the sad degradation of our most vital resource, the air around us.

Today we have before us legislation which, when enacted into law and implemented by Federal, State, and local governments, will serve as a Federal response to the public mandate.

The esteemed chairman of the Interstate and Foreign Commerce Committee, the gentleman from West Virginia, HARLEY O. STAGGERS, has aptly described the dangers inherent in uncontrolled air pollution. There is substantial evidence that the dirty air hanging over many of our urban areas may be causing unnecessary death, illness, and property damage. Our country has experienced air pollution disasters, as the gentleman from West Virginia has mentioned, in which it is believed large numbers of deaths have occurred.

As a nation and worldwide we seem to be contaminating our air faster than we can clean it up with present facilities and technology—at least, short of banning cars, trucks, and buses from our streets and forcing the great industry which gives us our high standard of living to close up shop.

Unfortunately, we still do not have a firm knowledge of what the total results of air pollution are, or how best to control air pollution in our present industrial society. And we have yet to reach scientific agreement on where the acceptable criteria and standards of air pollution should be set. But the criteria must be developed and realistic control standards must be recommended before we can successfully throw the weight of our resources into the battle.

Up to this point, the Federal Government has taken some steps forward in attempting to find answers to the challenge of air pollution.

The Federal interest goes back to the Eisenhower administration when the Republican Congress in 1954 first approved legislation for Federal research.

Since then, major responsibility has been given the Secretary of the Department of Health, Education, and Welfare to establish the command center in the battle against pollution. Federal standards for air-fouling emissions from cars and light trucks have been researched. Federal grants to municipalities have been adjusted to allow greater Government contributions toward the cost of community facilities construction. But, in point of fact, the Federal Government is still behind the needs of the situation. In spite of all its laboratory and personnel resources, the Federal Government has yet to determine the full effect that a wide range of pollutants have on our health and well-being.

A report by the Research Management Advisory Panel confirms that the basic issue in the field of environmental pollution relates to a clear definition of goals. The development of criteria is the area in which the Federal Government has the best capabilities and the most qualified expertise.

Until these criteria are adequately researched and fully established, efforts to establish and enforce standards will continue to lag. Only after a clear definition of criteria have been

determined and set, can the problems of abatement technology be attacked effectively.

Many think there is political advantage in pointing an accusing finger at industry. But it is noteworthy that when the Congress temporarily suspended the 7-percent investment tax credit last year, this tax credit was not suspended on investments in pollution-control facilities. It should be mentioned that many industries had been working on the problem through research and resulting nonproductive investments in plant improvements long before the Federal Government or the Congress began to react to public pressure on the problem of pollution or feel any Federal Governmental responsibility to act in the situation. Some private work in this area goes back to before the turn of this century. And a number of States are well ahead of Washington in governmental concern and action.

There continue to be notable examples of efforts by the private and local government sector to combat air pollution. One of the critical issues in this legislation focuses on the efforts of one State to set tighter than Federal controls.

Because I feel the Federal Government should encourage industry in the development of economical methods of resolving this problem and should share in the costs, I have introduced legislation in two successive Congresses to provide incentive tax credits to those industries which wish to spend their own dollar resources to research or invest in plant technology to control pollution.

My bill, H.R. 4287, has received broad bipartisan support, with some 110 of my colleagues on both sides of the aisle in the House introducing the same legislation. I take this support as an indication that Congress feels that both the public and private sector have responsibilities for the present state of air pollution in our country. My legislation would foster a partnership of responsibility for research, action, and financing between the Federal Government and our Nation's industries, recognizing the continuing contributions which can best be made by all parties at interest.

Industry, after all, faces costly problems if it is to meet the public demand for a cleaner, more healthy environment. But because of its specialization, industry already has, in many instances, the facilities to do more than just clean its own house. I believe we should encourage industry to help lead the way in solving the total pollution problem facing the Nation today.

An incentive tax credit is perhaps the most effective step the Federal Government could take to promote such a partnership. I recognize that my proposal has been deferred in committee because our Government is in dire straits financially, and is not in a position at this time to relinquish or reduce its tax dollar resources.

But the principle is sound, and its potential implementation should be considered in our long range anti-pollution battle plan.

The Federal interest must include an awareness of economics in another sense. We cannot overlook the fact that there is bound to be an economic impact on business and industry when standards for pollution emissions are established. Standards covering the burning of soft coal may very well have a deleterious effect on the coal producing economy in several of our States. If we seriously consider substituting electric cars for gasoline engines, such a reversal in trends will certainly have an impact, not only on the automobile industry, but on the petroleum industry as well—and quite likely on the electricity producing in-

dustry which has had its pollution problems.

Suffice it to say that, as criteria and standards are developed and prescribed,

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weight must be given to the impact they will have on all elements of our economy.

These things, the Air Quality Act is designed to try to do, at the same time recognizing the ability and desire of State and local governments to carry their share of the load.

Mr. Chairman, I endorse this bill, and recommend it as a sincere response to the public declaration that air pollution must be controlled.

Mr. STAGGERS. Mr. Chairman, I yield 5 minutes to the gentleman from California (Mr. ROYBAL).

Mr. ROYBAL. Mr. Chairman, there is no doubt that the State of California, particularly Los Angeles County, has a tremendous problem. A great deal has been said about smog and its origin, and the problems which we have in the State of California. It seems to me, though, that one must go back into time just a little bit and as we do we find that history tells us that when the Spaniards landed in what is now Los Angeles they saw an inversion of smoke and they called Los Angeles the Valley of Smoke.

This is actually the problem in Los Angeles today. There was and is today a certain atmospheric inversion that does not permit the smoke to go over the mountains or disappear in the gentle winds of the area. The truth of the matter is that today smoke has not only increased because of the density of the population; it has also increased in its pollutants, its eye irritants, and its chemical contents that are today polluting the air. Because of that we find that the people of the city of Los Angeles are perhaps at this very moment standing with tears in their eyes, not because they are sad but because of the eye irritants that make it almost impossible to do otherwise in that city.

Mr. Chairman, a great deal has been said about the experts here in Washington versus the experts in the State of California. I think we can stipulate to the fact that there are experts in both places, but we must also acknowledge the fact that the experts in California have far more experience with smog than the experts in the Department of Health, Education, and Welfare who spend all their time here in the Nation's Capital.

There is one thing that they no doubt have in common, and that is that medical experts here in Washington and those in California all agree that the studies made in Los Angeles on the effects of smog are genuine and actually show that people with heart and lung diseases such as emphysema, bronchitis, and asthma are made substantially worse during periods of increased concentration of smog. I think they also agree on the fact that the problem of smog and deaths as a result of smog are not just a problem in the Los Angeles basin but they are a problem for other cities in this Nation. For example, in 1948 smog in Donora, Pa., caused acute illness to 5,000 of the 144,000 population, with 18 deaths. In New York City in 1966 a heavy concentration of smog was responsible for 168 deaths. In London a major disaster was responsible for several hundred deaths.

I think we can also point to the fact that in the air pollution basin which is Los Angeles there are approximately 11 million residents and approximately 1,600,000 of these citizens have today some kind of significant chest pathology who are in danger of dying prematurely if we continue to have an excessive number of

smog alerts in the city of Los Angeles.

Some of my colleagues have said that this legislation makes it possible for California to continue with its progress. What this legislation actually does is make it necessary for California to come with hat in hand to Washington and on its knees plead acceptance of a program already proven and very much desired by the people living in California, a program which is based on knowledge of the danger based on scientific research, and a willingness of the people of the State of California to foot the bill.

Knowing bureaucracy in Washington, I can tell you that under the present version of the bill many dangerous smog alerts can well occur in the city of Los Angeles while California experts are pleading their case here in Washington, trying to convince the bureaucrats of the merits of their request.

So I say that this legislation must definitely be improved. It is good legislation now, and I compliment the members of the committee for it, but it can be made a lot better by adopting the amendment the gentleman from California (Mr. Moss) will present to this body.

Mr. DON H. CLAUSEN. Mr. Chairman, will the gentleman yield?

Mr. ROYBAL. Yes; I yield to the gentleman from California.

Mr. DON H. CLAUSEN, Mr. Chairman, I certainly want to associate myself with the remarks made by the gentleman from California, but I would also like to read from the testimony of Mr. Mann, President of the National Automobile Association, that has been alluded to previously a few times, indicating that he is aware of his problem, and this relates to the question of double standards, and how they recognize it as being necessary.

He said:

V. The one possible exception to national standards I referred to earlier has its roots in scientific considerations.

The smog problem in southern California is unique in its intensity and in the number of days it is present. Unlike other areas, it has a hot sun most of the year and a topography which impedes the free flow of air currents with a consequent propensity for air to remain motionless.

Because of these unique conditions, paragraph (b) of section 208 of S. 780 in effect authorizes, after notice and opportunity for hearing and subject to certain safeguards, standards more stringent than national standards. While the automobile industry would, for the reasons already stated, prefer a single national standard, it recognizes that the Los Angeles smog problem is unique.

Indeed, one of the problems we all face in the future is to keep the cost of the automobile within reach of the great majority of those who need them.

Under these circumstances, and given these possible future contingencies, the automobile manufacturers while preferring uniform national standards, do not oppose the objectives of paragraph (b) of section 208.

With difficulty automobile manufacturers could "live" with two different sets of standards.

I repeat, he makes the point that with difficulty automobile manufacturers could live with two different sets of standards. But what we are asking, Mr. Chairman, is we want to have a guarantee and not a promise.

Mr. SPRINGER. Mr Chairman, I yield 3 minutes to the gentleman from Tennessee [Mr. KUYKENDALL].

Mr. KUYKENDALL. Mr. Chairman, I rise in support of the Air Quality Act of 1967 and urge its favorable consideration by the House.

The gentleman from West Virginia [Mr. STAGGERS], chairman of the Interstate and Foreign Commerce Committee and his very capable colleague, the gentleman from Illinois [Mr. SPRINGER], the ranking minority member, should be complimented for their energetic and dedicated efforts in studying and analyzing this proposal and reporting to the House the very best bill possible. I congratulate

them for their fine leadership and for a job well done.

As a member of this committee who has spent many of his working hours on this bill I have become aware of the gravity of the growing problems of air pollution and it is time the Federal Government quit dragging its feet on this subject and took positive steps toward bringing about effective controls. With the exception of section 208(b) entitled "State Standards," I think the bill reported from the House committee is an excellent piece of legislation and I recommend its adoption. In reference to this particular section, I personally prefer the version passed by the Senate.

The most important objective of this legislation is to insure that air pollution problems will, in the future, be controlled in a systematic way. To this end, the bill contains provisions intended to insure that control action will be taken in accordance with the regional nature of the air pollution problem and that sources of air pollution will be controlled to the extent consistent with available knowledge of the adverse effects of pollutants on health and welfare and with available control technology. The bill gives the Secretary of Health, Education, and Welfare the responsibility for defining these standards. States would not be required to take any action until air quality control regions have been designated and until there has been an initial publication of air quality criteria and information on control technology.

The bill does a wise job of separating static emission sources and moving emission sources by separating automotive exhaust problems from the remainder of the pollution problems. It also meticulously adheres to the principle of local responsibility by State authority when the pollution problem is totally within one State and regional authority when the problem is within more than one State, and national authority in dealing with problems of moving emissions.

There are a great many unanswered problems in the area of air pollution. This bill is very attentive to the problem of research and development and insures full access to the technical information needed to evaluate the possible health hazards of pollutants in the air.

I am proud to have had a part in the

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committee's consideration of this legislation and I strongly urge its immediate passage.

Mr. SPRINGER. Mr. Chairman, I yield 5 minutes to the gentleman from California, Mr. REINECKE.

Mr. REINECKE, Mr. Chairman, I would like to associate myself with the authors of this bill. I believe it is a fine bill as far as it goes. I certainly believe it is timely that the House of Representatives did something about air pollution.

However, I would like to get right to the meat of the problem regarding the California situation, and particularly with respect to the questions that the auto industry has raised on this particular legislation.

A picture was painted a few moments ago of the automobile industry that had offered generously to have two standards. They admit they could live with two standards, it is quite true, and yet who else has been lobbying for this particular bill without the double standard, Mr. Chairman, I ask you? None other than the automobile manufacturers.

I would also have you read page 479 of the hearings, and you will find Mr. Mann himself, before the controversy ever came up, testified that preemption is necessary.

On page 497 our colleague, the gentleman from Michigan (Mr. DINGELL), asked Mr. Mann if he could draft the

language of an amendment—and this he did.

So I do not think the manufacturers can disassociate themselves from this particular situation. I think it is very good that the beneficiaries of the language as written is clearly that of the manufacturers association.

Please refer also to the hearings before the California Assembly of October 5 where a representative of the manufacturers admitted that the Dingell amendment was that of the auto industry.

The basic difference between this bill and the proposed amendment to the bill is one word "may" or "shall" —that the Secretary may require a State to hold to the national standards or whether he shall after due hearings allow the State to enforce stricter standards.

I lack confidence in any Secretary, Mr. Chairman. I personally do not have that confidence in an appointed official. I am saying this on the part of California here and I am perfectly willing to say it with regard to any other State at any other time in the future.

I do not think any appointed official should have the veto power over the health of the citizens of any State for reason of political expediency.

Another argument was made regarding mass production—that chaos would come if we destroy the concept of mass production. This is not quite the case because the automobile manufacturers have been complying with separate standards for California alone for the last 2 years. The model 1966 and 1967 cars have been different in California. Why suddenly is this going to cause chaos within the industry?

So far as foreign imports are concerned, they only sell a tiny percentage of their cars in California and yet they are not objecting at all to the California standards.

General Motors admitted they were perfectly willing to provide emission exhaust controls for cars delivered to Ontario, Canada.

I think it is obvious if we were talking of the days when a person could buy a Ford in any color he wanted as long as it was black that maybe that is a good argument. There are so many options and parts of cars that can be put on cars today that adding one more device with over 800,000 new cars being built every year is not going to destroy or cause chaos within the industry.

The Secretary himself admitted he did not have the experience and needed a great deal more information before standards could be set.

In his testimony on page 234, Dr. Stewart admitted there were no standards on carbon monoxide and there were no standards on hydrocarbons.

So how in the world is the Secretary going to be well advised, to take California standards, or to go further, when they have not even provided for the first standards of their own?

I should qualify that because they have provided for the first standards —they have copied California. Now they are asking the omnipotent and omniscient Secretary to know what is good for California by developing new standards in industry.

California has been in this field doing research for years. We have spent several hundreds of millions of dollars on automobile exhaust research and implementation. We are oldtimers in the field.

Yet the Secretary is supposed to know what is good for us.

I have one final comment to make regarding double and bureaucratic standards referred to by my friend from Michigan. I wonder also if he intends to do away with the State government in matters that duplicate the Federal Government.

So I could go on, Mr. Chairman. I

would like to make also a few comments as to just what is happening in California. If the bill remains as it is presently written, California, whose standards go substantially beyond the present standards—while not being enforced today, will be forced to cancel the plans to improve on hydocarbon content of 275 to 180 in 1970 to 100 in 1975. We will be forced to cancel plans to reduce carbon monoxide to 1 percent in 1970 and one-half of 1 percent in 1975. We will cancel the order that all trucks in 1969 be equipped properly. And on until the entire 20-year effort of California is ground to a halt.

Regarding mass production. Today's auto is built of mass produced parts and custom assembly by means of computerized material control systems. There are millions of combinations of any given model when we consider engines, transmissions, power steering, power brakes, colors, interiors, air conditioning, and so forth, not even bothering with the accessory options. Yet the manufacturers will make one of any one of these with no question. Why then should the exhaust reduction equipment turn the industry into chaos?

All California wants is the right to go beyond the national standards—at no cost to anyone outside of California. We ask no exemption—only an opportunity.

Mr. SPRINGER. Mr. Chairman, I yield 3 minutes to the gentleman from California [Mr. LIPSCOMB].

Mr. LIPSCOMB. Mr. Chairman, I know that this seems like "California Day," and I realize that Californians are occupying a great deal of the time in this debate. Perhaps we may be repeating on a point which is very vital to our State and, we feel, to our Nation. We are attempting to tell the House that we are not only here to protect California, but we are here trying to protect our Nation from the threat of smog and polluted air.

I believe that under the leadership of the gentleman from West Virginia [Mr. STAGGERS], and the gentleman from Illinois [Mr. SPRINGER], the committee has done a fine job in reporting out S. 780. It is a good bill, and I certainly believe that the Nation will benefit by their action.

There is no question but that air pollution has become a problem of critical proportions and a threat to the health and welfare of our Nation and its citizens.

The air we breathe is being polluted at a rapidly increasing rate. It is vital that the various levels of government, Federal, State, local, and private industry and the people generally join in a concerted effort to work toward eliminating this menace.

Representing as I do the 24th District of California which is located in the Los Angeles basin and having lived in the area most all of my life I can certainly vouch for the seriousness of air pollution to us.

Just over recent weeks air pollution in the basin has been at a very dangerous level. Literally hundreds of residents of my district have written to me to express their views on the urgency of the smog problem and the need to move ahead to strengthen the air pollution control program.

The propsed Air Quality Act of 1967, S. 780, before the House today basically represents a significant step forward toward formulating needed policies and procedures to deal with air pollution.

But it is a matter of deep concern to the State of California and the congressional district I represent that section 208(b) of the bill, as passed by the Senate, designed to permit California to move ahead without undue restraint in setting higher emission standards than the Federal auto emission standards, has been so

revised that it would take away part of the tools we so sorely need to move ahead aggressively in providing adequately for the protection of California, which it is recognized has a special problem.

The State of California pioneered air pollution control work, in establishing and enforcing standards of air purity. Our legislature in 1959 enacted the first motor vehicle emission standards. Under this and subsequent legislation, today 7.8 million California vehicles are already equipped with smog-control systems. These systems every day are keeping 2,300 tons of toxic carbon monoxide and

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550,000 gallons of unburned gasoline from seeping into the air which residents of California breathe.

We have already set the standards for the 1970 model cars and industry representatives have stated they are prepared to meet those standards.

It is very unfortunate that section 208(b) was modified by the House Interstate and Foreign Commerce Committee in a way which could potentially seriously affect California efforts.

As pointed out in a letter sent to the entire membership of the House earlier this week, signed by Representative CECIL KING, chairman of the California congressional delegation, and myself, this action could have serious effects on the California smog program.

Our current inspection requirements for certification of new cars for sale in the State would be wiped out.

The State's requirements that 1969-model gasoline powered trucks and buses be equipped with emission control systems would be nullified unless the Federal Government OK'd them.

Evaporation loss controls, established by California in 1965 for adoption in 1970 models, could not take effect without the consent of HEW.

Also, State standards already set to require more effective controls of hydrocarbon and carbon monoxide emissions by 1970 would be threatened —since there are no comparable Federal requirements.

California has been fighting air pollution for a long time. We have been leading the Nation in taking steps to solve the problem. Our health authorities see the need for air standards in California far in excess of those that may be acceptable on a national basis. Why place the damper of national conformity on our local and State air pollution work when it is so vital to the health and safety of our California citizens?

It cannot be overemphasized that California seeks the waiver from national standards not to do less toward dealing with air pollution, but because we want to do more. Unfortunately it appears this work could be seriously hampered by needless delays and roadblocks under the legislation as written preempting the field of establishing emission standards for the Federal Government.

I think it is of interest to note that the various Government departments and agencies, in their comments as printed in House Report No. 728 on S. 780, do not interpose objection to the bill as passed by the Senate containing the waiver to California of the general Federal emission standards in order that California might set higher standards. Some agencies in fact state that they have no objection to the bill as passed by the Senate.

The one reservation interposed by an agency as printed in House Report No. 728 is by the Department of State which sees the California waiver, of all things, in resulting ultimately in discrimination against imported automobiles and says it would cause "grave trade complications."

The Department goes on to state that in the event a waiver provision is retained in the bill it should be modified as suggested by Thomas C. Mann, president of the Automobile Manufacturers Association, whose suggested approach for a provision is now embodied in the bill. The Department of State indicates that while it had not been asked to comment on S. 780, it had heard from foreign embassies and representatives of American importers about the matter.

In my opinion it is highly disturbing for the State Department to place the interests of foreign car manufacturers above the health and welfare of the citizens of California, which is after all the reason for the proposal to allow California to set its own higher standards.

An amendment will be proposed at the appropriate time by the distinguished gentleman from California [Mr. MOSS] to allow California to set auto emission standards higher than the general Federal standards in line with the provision contained in S. 780 as passed unanimously by the other body. I respectfully ask that the amendment receive the support of the House.

California has devoted untold effort and has spent many millions of dollars to help control air pollution and protect our citizens. Help us to see that unnecessary restraints are not imposed which could impede this vital work. California's accomplishments have and certainly will continue to be of benefit throughout the Nation toward protecting all our people from air pollution.

Mr. HOLIFIELD. Mr. Chairman, will the gentleman yield?

Mr. LIPSCOMB. I yield to the gentleman from California.

Mr. HOLIFIELD. Is it not true that the foreign automobiles that come into California, such as the Volkswagen, Fiat, Volvo, and others, are complying with the California law and are installing these devices in order to get into the California market?

Mr. LIPSCOMB. Because of the effective administration of our California laws, foreign automobile manufacturers are cooperating with our State, and arrangements have been made for the placement of smog devices on automobiles coming into the State.

Mr. HOLIFIELD. And they are anxious to cooperate with the State?

Mr. LIPSCOMB. Yes, for California is a large market.

Mr. HOLIFIELD. The gentleman is correct.

Mr. SPRINGER. Mr. Chairman, I yield 4 minutes to the gentleman from California [Mr. HOSMER].

Mr. HOSMER. Mr. Chairman, I suppose this debate thus far, if it were in a courtroom, might be entitled, "The People of the State of California versus Ford, General Motors, and American Motors," because actually this issue is between the 20 million people of the State of California and these three giant corporations. To give an idea of what 20 million people amounts to, most of the countries of the world have a smaller population. Our gigantic neighbor to the north, Canada, has 20 million people, just like the State of California has 20 million people. Both are large and important societies.

What is this issue between these 20 million Californians and the three corporations? It is simply whether, as the gentleman from Michigan [Mr. HARVEY] so well pointed out, these corporations go before one regulatory body or two in connection with the control of emissions from automobiles.

Put another way, the issue is whether California can act responsibly, as it has in the past, to protect its people and their lives and their health, or whether California is going

to have to go, as somebody said, hat in hand, alongside these three corporations, up to a department in Washington and beg and plead for the opportunity to try to protect its citizens.

Believe me, this smog problem is an avalanche of trouble. Imagine any one of the States with a gigantic river raging all the way up to its banks. The people of the State want to keep this flood inside the banks from destroying them. They want to put sandbags on top of the bank, but there is a law that says, "No, you cannot do that. You have to go to Washington to get permission to stop this flood." This avalanche of smog is exactly that kind of situation.

We cannot see this stuff, but it can see and feel us, and it can burn our eyes, and can put disease in our lungs and can shorten our lives. We do not want to have to go pleading to Washington in the midst of a crisis to staunch this avalanche.

Believe me, I think any one of our States certainly ought to be able to protect its people in that kind of situation. I do not think any one of these three gigantic corporations has any right, natural or otherwise, to peddle a product in any part of this country, in any single State, that can cause consequences that these automobiles are causing under the very unique meteorological and geographical conditions in California that trap these poisons close to the ground in the air that people must breathe. We have to give the people in California the right to protect themselves. This is the only way to do it.

Why does the gentleman from Michigan [Mr. HARVEY] say these three gigantic corporations should not have to go before two regulatory bodies? He says they should just go to one. He says this is because the subject involved is one of scientific complexity and difficulty of interpretation. He says that is why.

Let nobody kid us. Scientific interpretations are as easy to make in California as in Washington, and in this situation they should be made in both places.

These three corporations are the same ones who are constantly down here in Washington arguing with the Government about safety standards in their automobiles. It is almost certain, if we give them the opportunity and the privilege to come only to Washington on this smog issue they will gum it up, they will get into hassles about smog devices, they will fog it up and slow it down, and the people in California will not be protected.

Give us the chance to protect our people. Support the amendment that will be offered permitting California to establish the higher standards applicable to automobile emissions that it needs.

Mr. STAGGERS. Mr. Chairman, I yield such time as he may consume to

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the gentleman from Florida [Mr. ROGERS].

Mr. ROGERS of Florida. Mr. Chairman, I thank the gentleman for yielding. I want to commend the gentleman, the chairman of the committee, for his leadership in this field, and the ranking minority member of the committee as well as all the members of the committee. I think all of the Members have tried to approach this subject in a realistic way, to find a solution which is the best way not just for one State but for all the States. I think we have lost sight of the fact that the present Federal standards are as high as the standards for the State of California. They are exactly the same.

I do not want the people in Florida to have automobiles coming into my State with lesser standards than cars going into California. I have no

reason to believe that they will, if this bill is enacted as approved by the committee.

I do not believe that New York State should have cars going into New York with any less stringent requirements than for those going into California. Under this law that would not happen.

I believe that California has done a magnificent job. I do not deny that. They have had some leadership, because they had a more acute problem at the time.

Now we have taken action. The Federal law has been enacted only since 1963, and only since 1965 have we had Federal emission standards for automobiles.

What we are doing is moving this whole Nation toward higher and safer standards. California can give advice. That will be most helpful. I am sure the Secretary will use that advice.

I want high standards set for every car in the country.

What about the cars that go into California? California is a great tourist State. Millions of Americans go there. Do we not want those cars to have just as high standards as the cars there? They are going to be there perhaps a month at a time.

I remember when we all descended on Los Angeles, thousands of people, during a convention there not too long ago. Every one of those cars ought not to be allowed to emit air pollution any worse than those in California.

This legislation is designed to get at that problem.

We want California to participate and to help, and to help set standards. This is the way we designed the legislation. We want every State to have the same protection as California. This is what we plan. That is what the legislation is designed for.

Mr. MOSS. Mr. Chairman, will the gentleman yield?

Mr. ROGERS of Florida. I yield to my good friend, the gentleman from California [Mr. MOSS].

Mr. MOSS. I want to say to my most eloquent friend from Florida that his concern for us in California is deeply appreciated, and reciprocated.

Mr. ROGERS of Florida. We Floridians must have concern for Californians.

Mr. MOSS. Would the gentleman inform the members of the Committee where the initiative for the present standards originated? Is it not true that the present standards, which the gentleman has characterized as being high national standards, without the pioneering of California and the technology of California would not be so high nor so uniform?

Mr. ROGERS of Florida. If the gentleman will permit me to answer, I would agree with the gentleman. This is certainly true. As a result of that, as the gentleman knows, our committee passed legislation in 1965.

We are now moving to solve this problem of air pollution. The Secretary has used the experience California has had. We would expect him to. We would expect him still to do so in the future.

We have the high standards which, as the gentleman says, may have been developed in part by California.

Surely the gentleman knows we have now taken action on the national scene because of the interstate complexion of the auto industry. We have gotten beyond just one State. Surely the gentleman would want to protect all the States just as much as he would want to protect California.

Mr. MOSS. Mr. Chairman, will the gentleman yield further?

Mr. ROGERS of Florida. I yield.

Mr. MOSS. Let me say to the gentleman, I certainly want to insure the progress which has been characterized because of the leadership of California, by preserving its role of

leadership and not tying its hands through a Federal bureaucracy.

Mr. ROGERS of Florida. I thank the gentleman. Certainly the role in experimentation, if that is desired, can continue. There is nothing to stop that. We would welcome it.

Mr. HOSMER. Mr. Chairman, will the gentleman yield?

Mr. ROGERS of Florida. I yield to the gentleman from California.

Mr. HOSMER. I want to say to the gentleman first, insofar as the tourist cars are concerned, those come out to about 5 percent of the vehicles on the road. If we can clean up 95 percent of the cars, we will get rid of the smog problem.

Mr. ROGERS of Florida. I hope, if the gentleman will permit me——

Mr. HOSMER. I am trying to tell the gentleman——

Mr. ROGERS of Florida. I hope the gentleman will not be provincial and just say that you want to clean up 95 percent of the cars which you have in your State. I hope you will have consideration for the other Members of Congress and the American public so as to let us have just as high standards as California has. That is what this committee wants.

Mr. HOSMER. Will the gentleman yield?

Mr. ROGERS of Florida. And that is what we want to insist upon. Yes; I yield to the gentleman.

Mr. HOSMER. That is exactly what I am trying to tell the gentleman, but you do not seem to understand how smog occurs. What comes out of the automobile and its consequences depends upon the meteorology and the geography of location. It is one thing in Florida as a consequence, but quite a different thing in California. Certainly we do not want you to have any less delightful air than we have in California.

Mr. ROGERS of Florida. I thank the gentleman.

Mr. HOSMER. But in order to accomplish that end, there must be very much stricter control of the emissions from vehicles in California than in Florida. The gentleman will certainly grant that.

Mr. ROGERS of Florida. I will not agree to that. It may be more of a problem there because of your air inversion. I agree with that. But I do not believe emission should be allowed to be any higher in Florida than in California.

Mr. HOSMER. You do not have the same problem and do not require the same answer.

Mr. ROGERS of Florida. We may have the problem here in Washington, also. In the summertime, as you go along Rock Creek Park and on 14th Street, there is a problem. I have felt the smog at times. I can understand the position of the gentleman from California, but all we are trying to do is set higher standards for all of our Nation. The Congress should do no less.

Mr. HAYS. Mr. Chairman, will the gentleman yield?

Mr. ROGERS of Florida. Yes. I will be glad to yield to the gentleman from Ohio.

Mr. HAYS. As I understand it, the automobile manufacturers say that they can make a car which will produce less emission for California and make one for the rest of the country which produces 80 parts per million. Is that not right?

Mr. ROGERS of Florida. That is the basis.

Mr. HAYS. Why not do this by having them make the car that is good for California for the whole country?

Mr. ROGERS of Florida. I thank the gentleman, and that is exactly what the committee is trying to do.

Mr. HAYS. No, it is not.

Mr. ROGERS of Florida. The gentleman does not understand, then.

Mr. HAYS. Yes. I understand only too well.

Mr. ROGERS of Florida. Let me tell the gentleman he does not understand the intent of the committee, because what we have said is we want the high standards set for all of the Nation so that the cars in Ohio will have no greater emission of air pollution in your State or my State of Florida than they have in California.

Mr. HAYS. Will the gentleman yield now?

Mr. ROGERS of Florida. And the present standards are now the same. I yield to the gentleman.

Mr. HAYS. But they can make one with lower emission than 275 parts per million.

Mr. ROGERS of Florida. That is right. And it will be required by the Department. I have already discussed it with them. They say these standards will be changed.

Mr. HAYS. Why do you say they will require that? It is the same silly outfit that tested those seat belts where you break your neck and they put it on your car. I tell my dealer, if it is on my car, "Take it back. I do not want it."

Mr. ROGERS of Florida. This is a

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different department entirely. This is the department which is set up for it. What we are trying to do simply is set national standards where every American car will not pollute the air any more than any other American's car. That is what we are trying to accomplish.

Mr. HOSMER. Mr. Chairman, will the gentleman yield?

Mr. ROGERS of Florida. I yield to the gentleman.

Mr. HOSMER. I want to say in some parts of the country you do not need the extra emission control. One of them is Florida. You do not want your Florida people to have to buy devices that are necessary in California, unnecessary in Florida, and pay extra for them. They are not needed in Florida.

Mr. ROGERS of Florida. Let me answer the gentleman by saying the gentleman is somewhat presumptuous in saying that we do not want to have our cars emit as little pollution as any other State. I think Americans all over the country are so conscious now of air pollution that they are ready to attack the problem.

We have already passed the law in 1963 and 1965, and this is simply an extension, and it is to be nationwide, and not just to apply for the purpose of one State.

Mr. Chairman, I yield back the balance of my time.

Mr. STAGGERS. Mr. Chairman, I yield such time as he may consume to the gentleman from California [Mr. TUNNEY].

Mr. TUNNEY. Mr. Chairman, I am very much in favor of the Air Quality Act, so long as it contains an amendment giving California the right to set its own auto emission standards.

Mr. Chairman, the Air Quality Act which we are considering today amends the Clean Air Act to provide for planning grants to air pollution control agencies, to expand research provisions relating to fuels and vehicles, to provide for interstate air pollution control agencies or commissions, and to authorize the establishment of air quality standards.

The Congress, State, and local governments, and industries, have only recently begun to show their concern and awareness of the problem of air pollution in the face of the ever-increasing outcry of public dissatisfaction. We have acted slowly and the bill before us today is at least an important first step in the fight against air pollution.

However, the Air Quality Act, as

reported out of the House Interstate and Foreign Commerce Committee, contains a major flaw which I hope we will act to correct today.

The Senate-passed bill exempts California from the proposed auto emission provision. The House bill, however, would prohibit California from adopting auto emission standards more stringent than the proposed Federal standards despite the fact that we have an air pollution problem of different magnitude than in other States.

Mr. Chairman, the past few years have witnessed a rise in concern over State and local responsibility. California has made some progress in an attempt to solve the serious problems of air pollution and environmental quality control. It is significant to note that the Federal standards proposed under the Air Quality Act are modeled after those in effect in California in 1966 and were not then satisfactory to our needs. It would be ironic to tell the people of California and those of other States that they cannot wage a better and more effective battle against air pollution than the Federal Government. This is especially true since the results of California's research and past experience have contributed so much to the formulation of the Air Quality Act which we are now considering. California should not be penalized for its accomplishments.

California has already outgrown the proposed Federal regulations and should be allowed to progress according to its needs. We are facing a serious and spreading smog problem, primarily caused by motor vehicle emissions. In 1965, for example, California had 11.1 million registered vehicles and 18.4 million people, two cars for every three people. There are 2,000 additional new motor vehicles per day registered in California. My district, consisting of Riverside and Imperial Counties, was relatively smog free until just a few years ago. Now a good portion of my district is covered by an ever-increasing smog haze. How can I tell my constituents that the State cannot move rapidly to correct this problem because the Federal Government must first catch up? To a people threatened by the health and other dangers of air pollution, this is too much to ask.

It is alleged that the preemption of California, allowing the State to set more stringent air pollution standards, would work a hardship on the auto industry. However, the opposite choice is to ask the people of California to bear the hardship of air pollution and mark time until the Federal Government is ready to move ahead. The choice that the Congress makes will have a long-range effect on encouraging future State and local responsibility. California did not rely on the Federal Government in fighting air pollution. I would have hoped that the Air Quality Act would have stronger controls than those proposed in the bill we are considering. However, the least we can do now is to allow a State to move ahead with more stringent and effective standards. I am sure that other regions and States will be faced with a similar problem soon and I urge the House to amend the bill now to allow California to move ahead with its fight against air pollution and protect the health and welfare of its people.

Mr. STAGGERS. Mr. Chairman, I yield such time as he may consume to the gentleman from New Jersey [Mr. MINISH].

Mr. MINISH. Mr. Chairman, I rise to urge the passage of the Air Quality Act of 1967. In my judgment, this is a matter of the greatest importance and urgency. This measure will pave the way for a concerted and systematic attack on air pollution throughout the United States.

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The district which I am privileged to represent is located in one of our Nation's major metropolitan areas and I am, therefore, keenly aware of the extent of the pollution menace. However, let me hasten to point out that there is no single urban area in the United States today free from the growing threat of air pollution.

I have been continually concerned with this serious situation during my service in the Congress. The enactment of the initial Clean Air Act in 1963 during my first year in the House of Representatives was most gratifying to me, as were the strengthening amendments approved in 1965 and 1966. Today, I am pleased to vote for the Air Quality Act of 1967, which arguments and implements the original legislation.

Mr. Speaker, we now have definitive evidence linking air pollution to the aggravation of disorders of the respiratory system such as asthma, bronchitis, and emphysema. In addition, many otherwise healthy persons are troubled by coughs, throat irritations, and headaches as a result of air pollution. These dangers, not to mention the effect on man's natural environment, are well documented. On the other hand, knowledge of how to combat air pollution is far from adequate.

The Air Quality Act of 1967 provides for extensive new research efforts to develop methods and techniques for eliminating pollutants from our atmosphere. It authorizes the Secretary of the Department of Health, Education, and Welfare to continue current air pollution research and adds authority for the Secretary to establish various technical advisory committees to assist him in administering and planning his future research program.

More specifically, the legislation directs the Secretary to conduct studies into the problem of controlling emissions from aircraft, to make grants to State air pollution control agencies for the development of inspection and testing facilities to combat pollution caused by motor vehicles, and to determine the feasibility of establishing national emission standards for stationary sources of air pollution.

Mr. Chairman, I hope that Congress will acknowledge the seriousness of the air pollution problem by passing the Air Quality Control Act of 1967. The need is evident. The issue is clear. The health of our people and our environment is at stake. Without this bill, the future is bleak indeed. In the next 10 years alone, we will have one-third more motor vehicles on our highways, our industrial production will double, and the population in our urban centers will increase by 30 percent. If we wait, in the words of President Johnson, "We will have lost the battle for clean air." The time to act is now.

Mr. STAGGERS. Mr. Chairman, I yield such time as he may consume to the gentleman from Pennsylvania [Mr. EILBERG].

Mr. EILBERG. Mr. Chairman, I rise in support of this bill.

Mr. Chairman, now we have heard the harmful effects of air pollution discussed many times. A repetition of the facts, however, does not dilute their significance. Nor does a repetition of the facts add to our knowledge about the causes of air pollution. We must continue and expand our research efforts to establish effective remedies.

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President Johnson had this problem well in mind when he said:

> Many sources of air pollution cannot be economically or effectively controlled by our present technology. The sheer number of motor vehicles may, within a decade or two, defy the best pollution control methods we can develop. If this proves true, surely we cannot continue to use the type of internal combustion engine

now in service. New types of internal combustion engines—or indeed new propulsion systems—may be required. Aircraft engine exhausts are also becoming significant pollution problems. Sulfur compounds—created wherever coal or oil is burned—threaten the environment of almost every city and town in America.

The President has said, and I repeat, "threaten the environment of almost every city and town in America." This is not a problem of one area or even several. This is not even an urban problem as opposed to suburban, exurban or rural. This is a universal problem in our Nation, solutions to which must cross city, county, and State lines as the pollutants themselves do.

The health or economic implications of a solution to this problem are of tremendous importance. We cannot afford to jeopardize the vast resources that have been invested by industry thus far. But neither can we afford to ignore the health of millions of Americans. The Committee on Interstate and Foreign Commerce is to be commended for thoughtful consideration of the complex problems involved in drafting this legislation, and in carrying out the President's recommendations. I strongly urge the passage of the Air Quality Act of 1967.

Mr. STAGGERS. Mr. Chairman, I ask unanimous consent that the gentleman from New York [Mr. MURPHY] may extend his remarks at this point in the RECORD.

The CHAIRMAN. Is there objection to the request of the gentleman from West Virginia?

There was no objection.

Mr. MURPHY of New York. Mr. Chairman, I rise today in support of S. 780, the Air Quality Act of 1967.

The Air Quality Act is a vital part of the comprehensive national effort to control and abate air pollution which began with the Clean Air Act of 1963. The Clean Air Act was amended once in 1965, and is being amended today through the new Air Quality Act.

The need for Federal legislation in the air pollution field is well documented. There can be no doubt that air pollution is a threat to the health of the American people. For example, there is a direct association between air pollution and excess mortality during periods of unusually severe air pollution, and there is a direct relationship between the incidence of many diseases and air pollution experienced by large population groups over a period of time. In addition, there is a large amount of laboratory evidence gathered from experiments on animals which demonstrates the harm caused by air pollution. But while public health is our primary concern, air pollution also has a serious economic impact; it is estimated that the effects of air pollution result in a loss of over $11 billion a year.

The need for this bill, therefore, is obvious. There is no reason why we should continue to breathe polluted air. A nation which can send a rocket to the moon is certainly capable of cleaning the air it breathes on earth.

This bill would be an important step forward in the battle to clean our air here on earth. It would direct the States to deal with air pollution problems within air quality control regions designated by the Secretary of Health, Education, and Welfare, and thus would focus control efforts on specific problem areas. In addition, the Secretary would be directed to establish air quality criteria and to provide information on the available air pollution control techniques.

Once these regions were delineated, the criteria established, and information on the control techniques made available, it would be up to the States to establish air quality standards and adopt a plan for their enforcement and implementation. The Federal Government would be empowered to

initiate action to insure setting and enforcement of standards only if a State failed to take reasonable action to achieve compliance.

A major section of this bill requires the Secretary to initiate a program of research and training. This is necessary because no single State has facilities or resources to carry out a comprehensive research effort. It is important, however, that the benefits of this research program be made available to State and local agencies; this is provided for in the bill.

The bill also provides for a strong regional approach to fighting air pollution, an approach which recognizes the fact that air pollution does not respect State or local boundaries. Interstate air quality agencies or commissions are encouraged under the act, and the Federal Government will pay up to 100 percent of the cost of their programs for up to 2 years, and up to three-fourths of the cost thereafter.

This is of particular importance to my own State of New York, because of the five-state air pollution control compact proposed by Governor Rockefeller.

There is no area which needs interstate action more than the New York-New Jersey metropolitan area, which includes my own district. According to the Public Health Service, this area has the worst air pollution problem in the Nation. An interstate agreement between New Jersey and New York for this specific area, which comprises about 17 counties, would be a logical response to the problem. Instead, Governor Rockefeller proposed a five-State compact which does not relate to any problem area, and which would be so cumbersome as to virtually eliminate any chance of effective air pollution control.

For this reason, I offered an amendment in committee, which was adopted as section 102(a) of the bill, which would discourage interstate agreements or compacts unless each signatory State is entirely or partially included in a common air quality control region. This is in keeping with the basic purpose of the bill, which is to deal with the specific problem areas —the air quality control regions designated by the Secretary.

These are just a few of the important provisions in the bill—there are many others. In general, it provides for a coordinated effort between local, State, and Federal governments directed at controlling and abating air pollution. It provides the tools necessary to eventually overcome the pollution problem which today smothers our cities in filth. I am confident that with this bill we can make significant progress in our fight against air pollution, and I urge my colleagues to support it today.

Mr. STAGGERS. Mr. Chairman, I yield 5 minutes to the gentleman from Maryland [Mr. MACHEN].

Mr. MACHEN. Mr. Chairman, I rise to give my firm support to the legislation we are considering today to amend the Clean Air Act of 1963, the Air Quality Act of 1967. The prompt enactment of this legislation is of great concern to me and all those who live in this great country of ours.

There can be no doubt that air pollution is a threat to the health and well-being of the American people. Air pollution is responsible to a degree for some deaths and a great deal of unnecessary disability and discomfort. Moreover, this problem, which we all recognize as being very serious, is growing worse in direct relation to the Nation's continued economic growth and technological advancement.

The Clean Air Act of 1963 marked the beginning of a new and more hopeful era in air pollution control. Under this act, for the first time, authority was provided for Federal

regulatory action to abate interstate pollution problems and for the awarding of Federal funds to encourage the development of regulatory programs at the State and local level.

In spite of the efforts undertaken as a result of this legislation, and the additional measures which the 1965 and 1966 amendments to the Clean Air Act provided, we are not even controlling today's level of pollution. It is estimated that by 1980 the Nation's urban population will be one-third greater; the number of motor vehicles in use will have increased by 40 percent; and the demands for energy will be 50 percent greater. Unless we expand our efforts in the area of air pollution control now, this problem will reach highly critical proportions in the next decade.

This legislation we are considering today does not take anything away from our past efforts in the field of air pollution control, but adds a new and I believe a much needed dimension to them. The approach taken in this measure hinges to a great extent on the necessity for the States to take action to deal with this problem within air quality control regions designated by the Secretary of the Department of Health, Education, and Welfare. In brief, the States would be responsible for setting air quality standards for such regions and for implementing plans to meet those standards. This means that it will be up to the State governments to determine, first, the maximum concentrations of pollutants that will be permitted in the air in such regions during a given time period before the danger point is reached, and second, the extent that such pollution sources in the region must be controlled to meet the regional air quality standards.

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The Department of Health, Education, and Welfare would assist the States in their effort, by publishing air quality criteria and information on recommended control technology. Moreover, the Department would be given the responsibility and duty to determine whether State standards are adequate and consistent with the purposes of this bill. In addition, the Department would be empowered to initiate action against the States if it were discovered that action at that level was not consistent with the mandate to develop and implement air quality standards.

Efforts to combat air pollution in the past have been limited by a reluctance on the part of governmental units to cross jurisdictional lines in seeking solutions to the problem. I believe that, in seeking any solution to this problem, it is of the utmost importance that the attack on pollution sources be broad enough so that action can be taken on the whole problem. This still recognizes this weakness in past efforts and provides, among other things, for the establishment of interstate air pollution control agencies and commissions.

In summation, I believe the bill we are considering today deserves our support because it recognizes that we must now enter a new era in the nationwide struggle against air pollution. The hit-or-miss, largely uncertain control efforts on the part of all levels of government thus far, have not achieved the success which is needed. These former efforts have to be augmented and in some instances supplanted by a more rational scientific effort which attacks the problem at its root causes. I believe this legislation provides the tools which, if used effectively, can assure us of achieving a real breakthrough in winning the battle for clean air.

Mr. STAGGERS. Mr. Chairman, I yield 5 minutes to the gentleman from California [Mr. VAN DEERLIN].

Mr. VAN DEERLIN. Mr. Chair-

man, I thank the gentleman for yielding.

Mr. MOSS. Mr. Chairman, will the gentleman yield?

Mr. VAN DEERLIN. I yield to the gentleman from California.

Mr. MOSS. Mr. Chairman, I have asked for this time in order to clear up the point made by the distinguished gentleman from Florida, who was talking about the desirability of the same standards of emission clear across this Nation.

There is a question here of whether that would be economically wise. In order to maintain the same standards across this Nation it would be necessary to have different standards of emission. For that reason the bill provides for varying ambient air standards, regional standards. And it is for that reason and now recognition of the fact that we in California seek the opportunity to have the most stringent requirement on emission standards. But the two should be kept clearly in mind.

Mr. Chairman, I thank the gentleman for yielding.

Mr. VAN DEERLIN. Mr. Chairman, it should not be necessary to reiterate this, but for my own part I would like to emphasize that with none of us is there the slightest feeling of animosity toward any Member of this House who, for whatever the reason that has impelled him, takes a position in opposition to the aspirations of California on this legislation.

I could even be more specific by saying that in the 5 years that I have served in this House, no Member on my committee of the House has shown me courtesy or kindness exceeding that of the gentleman from Michigan, JOHN DINGELL. I would add that my friend, the gentleman from Michigan, JIM HARVEY, is one of the most articulate and courageous Members in this House.

I hope that we Californians will be forgiven for what may have appeared to some of you, as we badgered you in committee or as we buttonholed you in the hallways, as parochialism on this subject. It must be quite apparent that we do feel deeply on the subject of air pollution.

It happens that a majority of our California delegation are native sons of California—we were born there. We do not say very much about this around election time, because the percentage of native sons is not sufficient in California to constitute much of a voting bloc. But it does mean that a good many of us on the California delegation remember back a long way.

We remember what our State was like before the savage intrusion of air pollution. I was a student at the University of Southern California back in the mid-thirties. We did not see such a good football team in those days as they do today—but on almost any day in the year, we could see as far as the mountains surrounding Los Angeles. It is interesting to note that it was only on certain kinds of days that you could not see all the way to the mountains. Those were on the crisp, cold days in the winter when the orange growers were using their smudge pots to keep the fruit on the trees from freezing. Now the orchardists use more sophisticated methods to keep the air in circulation, and to protect the fruit. So it happens that these are only days now—the cold, crisp days of winter—when it seems that sometimes you can see the mountains.

Now we Californians are not to be entirely absolved of blame. It is true that our natural air is still the same as it was in the thirties. We have put an awful lot of pollutants into the air. We have got rid of backyard incinerators and sources of industrial pollution, some 15 years ago. We find now that auto emissions are the last really

remaining villain, and we have undertaken to do something about them.

You can understand that problem when you understand that since World War II the number of automobiles nationally has tripled from some 30 million to nearly 90 million. In California we have gone up about four times. It is a very staggering statistic. Every day in the year 1,800 new automobiles are registered in the State of California.

Would you believe this? That it is literally possible for the entire State of California, the entire population, to ride on the streets and highways in cars that are licensed in California today—and to do that occupying only the front seats?

Quite clearly, this became a very intense political problem, some 15 years ago. Many a member of the California delegation, when he served in the State legislature or in the city councils of California, has been a part of the local or State governments that responded to this challenge. They have responded to the extent that if California had not taken the pioneer steps that she has taken on her own, and at her own expense, and discovered through scientific inquiry what was going to be required to meet this, it is estimated that the smog today in southern California would be 25 percent worse than it is in these pictures that you see out here in the Speaker's lobby. Yet it is still worse than it was in 1960.

We want the right to continue this program as we have started it. We do not want you to tell us we must now stop it. We want you to think of the 19 million people that we represent, and who are watching the actions that will take place in this body during the next 2 hours. They look upon our decision this afternoon as a real crisis for California.

So, to paraphrase a great 20th century leader of the free world, I will close by saying, "Let us keep the tools, and we will finish the job."

Mr. SPRINGER. Mr. Chairman, I yield 3 minutes to the gentleman from Kentucky [Mr. CARTER].

Mr. CARTER. Mr. Chairman, I rise in support of the bill now before us to provide a more effective means to control air pollution.

To me, it seems that we are losing ground in the fight against air pollution, although the Clean Air Act of 1963 initiated the national effort to control air pollution. Some progress has been made since that time, but the fact remains that air pollution is increasing much faster than are our efforts to control it.

In short, we are losing ground in our struggle to control the air we breathe. This fact was forcefully documented last December by Secretary of Health, Education, and Welfare John Gardner, in an address before the Third National Conference on Air Pollution.

At this point, Mr. Chairman, I would like to include in my remarks a portion of the Secretary's address:

EXCERPTS FROM SECRETARY GARDNER'S ADDRESS

While this response is encouraging, it is little more than a beginning. Most State programs lack adequate authority and resources. Only a half-dozen have more than a minimal abatement program. Few are able to serve communities which are too small to operate their own programs.

Our most recent estimate indicates that only 58 percent of the urban population of the United States is now served by local air pollution programs. And where programs do exist, their resources are meager. On a per capita basis, annual spending for local air pollution control amounts to about 15 cents. Yet at least 40 cents per capita is considered necessary for an adequate local effort.

Regional programs are virtually non-existent. Only 5 of the 24 largest metropolitan areas are now served by regional activity of any sort. Sixty-nine million people—about one-half of the Nation's urban population—live in these 24 areas.

The truth is that we are actually losing

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ground in the fight against pollution. The smog continues to grow more dense even as we con-

tinue to talk about it.

Neither government nor industry has yet moved forward with the vigor and determination which were so well described.

State and local governments have been slow in seizing the opportunities for action. In particular, they have failed to establish the regional approaches demanded by a problem that ignores traditional state boundaries.

As the Secretary pointed out, regional air pollution programs are absolutely necessary but are "virtually nonexistent."

But, Mr. Chairman, we now have an opportunity to remedy this shocking situation. The Air Quality Act of 1967, as reported out by the Committee on Interstate and Foreign Commerce, will provide the basis for systematic air pollution control activities on a regional scale.

Therefore, I strongly support this bill and urge its speedy enactment.

Mr. BROTZMAN. Mr. Chairman, will the gentleman yield?

Mr. CARTER. I yield to the gentleman from Colorado.

Mr. BROTZMAN. Mr. Chairman, I thank the gentleman for yielding. I congratulate him on his excellent remarks and his diligent and hard work as a member of the committee.

Mr. Chairman, I rise in support of S. 780, the Air Quality Act of 1967. This bill is the product of long and extensive hearings by the House Interstate and Foreign Commerce Committe, on which I serve. I wish to commend our distinguished chairman, the gentleman from West Virginia [Mr. STAGGERS], and the gentleman from Illinois [Mr. SPRINGER], the ranking member, for the manner in which they conducted those hearings.

Certainly, Mr. Chairman, there can be no doubt that the need to face the menacing problem of air pollution must be met. Today, approximately 130 million tons of pollutants are discharged annually into the atmosphere. Not one major metropolitan area in the United States is without an air pollution problem today. By 1980, the Nation's urban population will increase by a third, the number of motor vehicles by 40 percent and the demand for industrial power and energy by 50 percent, all adding to the dangers of a growing air pollution problem.

Steps must be taken now to improve our capacity to meet this problem. I am pleased that this type of legislation enjoys bipartisan support. In 1955, President Eisenhower urged the enactment of air pollution legislation. Subsequently, the first legislation in this area was enacted by the 84th Congress with strong Republican support. During the 88th Congress, I was pleased to assist in the drafting of legislation which culminated in the enactment of the Clean Air Act. The bill which we are considering today is part of President Johnson's program to assure a healthy environment to every American. The Republican policy committee has urged enactment of the bill.

Basically, S. 780 will provide $362.3 million over a 3-year period for air control research, studies, planning, and grants to States and air pollution agencies. The bill also encourages the solution of air pollution problems on a regional basis.

I would like to take a moment to discuss this bill's relationship to Colorado.

Perhaps, Mr. Chairman, we in Colorado have been more fortunate than many of our more industrialized sister States. We have not had the same experiences as California, New York, or New Jersey. But, Mr. Chairman, pollution is coming to Colorado and other States, and it is coming fast.

I am pleased to report, Mr. Chairman, that Colorado has taken steps to control and regulate air pollution. In testimony before our committee, Mr. John Fleming Kelly, legal counsel for the Colorado Association of Commerce and Industry, stated that S.

780, if improperly interpreted by the Federal Government could seriously endanger the Colorado air pollution program.

As he said, under the bill—

> It is possible that an air control region within a particular state would be larger or not coincide with a basin as defined in our Colorado act and as regulated by our Colorado law.

I expressed my very grave concern to the committee, and worked to assure that Colorado's interests would be protected. I am pleased to say that language in the bill report states:

> The Committee learned that in at least one State (Colorado) air pollution regions have already been set under State law, and there is some concern that those regions designated by the Secretary will not be coterminous with them, thus raising problems of the administration of standards where the regions differ. The committee expects the Department of Health, Education, and Welfare to consult with proper officials of the States to assure that maximum consideration is given to the regions established or that may be established in such States, and to the State law under which they were established.

I feel that this language protects not only Colorado, but the rights of other States in a similar situation.

Mr. STUCKEY. Mr. Chairman, there has been a good deal of discussion this afternoon about the committee version of the bill under discussion, particularly with respect to the flexibility it affords California in its search for stringent, meaningful air pollution control standards.

The bill, as reported by our committee, places the responsibility for prescribing standards for California in the hands of the Secretary of Health, Education, and Welfare. In my judgment, this is a sound procedure. While it will facilitate unified direction and enforcement of the Federal control program, it will, nevertheless, permit those participating in the program to deal with a single agency.

HEW will be charged with establishing a national program in the area of automobile exhaust emissions. At the same time, it can permit a specific variation from the national controls as required by California. Most importantly, the single administrative responsibility in HEW would tend to reduce the possibility of conflict in administrative interpretation between varying and possibly competing regulatory agencies.

I can understand the concern of California with increasing air pollution problems, and I can understand the need for California to give itself the maximum amount of flexibility possible. No one disagrees with California's need to work toward increasingly stringent standards. We hope it will. But the ultimate coordination and thrust of a national program belongs at the national level.

Research, testing, evaluation, and setting of standards is complex enough without legislating parallel or duplicative efforts. If experience is any guide, two administrators of this program would dilute the national objective, diffuse testing and evaluation of new control systems, and eventually result in an increase in costs of the devices themselves—costs borne by every consumer in every State. All these complications are made worse by the problem of patchwork laws affecting American motorists driving interstate.

Since HEW is an agency of the U.S. Government and has the authority under a 1965 act of Congress to set these standards, I urge the House to enact S. 780 as reported by the House Commerce Committee. Why should the California legislature carry out the role which Congress itself assumed when it passed the Clean Air Act in 1963 and the 1965 amendments thereto governing auto pollution?

I have confidence in the committee-passed bill, and I feel that the national interest—and that means every State's interest—will be best served

by our support of the legislation before us.

Mr. LLOYD. Mr. Chairman, the issue as to whether or not the original air pollution legislation of 1963 was most effectively drafted to retain and insure the desired initiative and participation by State and local government was resolved with the enactment of that original legislation in 1963.

The mechanics of participation by the Federal Government as presented at that time were enacted into law and the mechanics of basic national policy are, therefore, no longer before us. Our challenge now is to move ahead in a realistic manner which will improve healthy habitation in the United States.

We cannot afford to gamble with polluted air. We must take those measures which will insure the acceptance of maximum responsibility at all levels of government. Need for the legislation which is before us today is, therefore, both self-evident and urgent.

There are countless examples of enlightened and effective work by State and local government in the fight for clean air. I am proud, for example, of excellent progress being made in Utah and in my district where the Salt Lake City Air Pollution Committee has a record of which we are very proud. As stated by Mr. Calvin A. Behle, cochairman of the Air Pollution Committee of the Salt Lake Area Chamber of Commerce:

For years an Air Pollution Committee of the Salt Lake Area Chamber of Commerce has met regularly to note the extent of control, to suggest steps that should be taken to control undue pollution, and to keep informed generally and act on behalf of the public interest to prevent our own cities from ever waking up with smog comparable

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to that of Los Angeles. Official recognition was given that Committee, and its continuance was recommended as the central representative and informational group for our State of Utah, by an official report: *Air Resources in Utah*, prepared at the request of the 1961 State Legislature and published and approved by the Utah Legislative Council in June of 1962. The 1963 Legislature pursuant to this report then extended authority to our twenty-nine counties to pass and enforce ordinances dealing with air pollution in a manner comparable with the authority previously granted to cities. Air pollution was defined as a public nuisance as well as a crime, with the City and County municipal authorities authorized to bring appropriate abatement, injunctive and criminal proceedings.

It was also determined that for Utah, the State Department of Health should be the appropriate agency to be charged with responsibility closely to follow the air pollution situation in our State; and by means of sampling programs and close cooperation with local governments, State Universities, industries and other agencies, to keep abreast of the problem. A special Advisory Committee to the Director of the State Department of Health was appointed by the Governor; and it has functioned, primarily in the beryllium testing field.

In addition, special studies have been made by the League of Women Voters, resulting in their own constructive report. *What's in the Air?* released in February, 1966. A study of air pollution in Salt Lake County has recently been completed for ultimate publication by the Community Services Council, as a part of its overall evaluation of the environmental health conditions in this County.

The State Board of Health with the cooperation of the U.S. Public Health Service has assembled a radiological laboratory at a cost of some $150,000.00. Our Board's measurements originating in July, 1962 with the emissions from Frenchman's Flat, and accompanying studies, have resulted in Utah being the leading State of our country in its measurement and knowledge of effects of radioactive fall-out.

In addition, Salt Lake County and Salt Lake City have now made a beginning by setting up a new joint committee for the study of air pollution.

This bill provides for control of air pollution on a regional basis, with States having the primary responsibility for establishing air quality standards and enforcement plans consistent with criteria and technological data furnished by the Federal Government. It would also allow Federal intervention in setting and enforcing standards if a State fails to

take reasonable action. And finally, it continues the major activities provided for in the original Clean Air Act.

I support this legislation.

Mr. BOLAND. Mr. Chairman, the Congress has taken a leadership position in the abatement of air pollution since 1963. The legislation which we are considering today is one more important step of authorizing and funding the activities of Government which must assure collective stewardship of the air we breathe individually.

This 1967 act is necessary, not because previous legislation is deficient, but because we know so much more about air pollution. The act will enable us to fully utilize new information on cause and effect relationships between contaminants and damage to human health, crops, property, and esthetic values. We have additional knowledge of terrain conditions which cause unusually severe pollution in local areas; and of weather patterns which bring on the short-term but threatening episodes such as the east coast and New York City smog just a year ago. We have new abatement technologies to deploy in industry, space heating, electric power, and municipal incineration. New and strengthened institutional concepts have arisen to deal with air regions which cross political boundaries.

The 1967 act takes these facts into consideration with the existing law and integrates both in a strong Federal program.

Air pollution is not just one problem. It is a complex of waste management, economic feasibilities, personal liberties, and technology—all of which affect the atmosphere. Each different pollutant has its own chemical and biological consequences. Each combination of pollutants is a unique problem for air quality. This Nation is so large and diversified that even closely neighboring regions may find widely varying requirements to keep their air clean.

Therefore, this bill rejects any hasty and unsupported move toward uniform nationwide standards for emissions from stationary sources. It calls for a definition of air regions and an enforcement procedure which avoids arbitrary State and local jurisdictional lines. It exhorts the Department of Health, Education, and Welfare to produce scientifically sound criteria by which to judge air quality. Both industry and Government are joined in defining these numerical relationships so that equitable enforcement can be obtained. Abatement technology which is effective in relation to its cost will be developed under the research program of this act.

Only by considering the complexity of individual air pollution problems, can we eventually achieve the goal of nationwide quality where each American enjoys the vital breath of life. That consideration is afforded by the Air Quality Act of 1967.

Mr. BOB WILSON. Mr. Chairman, I rise today in support of the Murphy amendment, unanimously supported by the entire California delegation, which would permit the State of California to establish more stringent auto pollution standards than those contained in the proposed Air Quality Act of 1967.

California years ago took the lead in efforts to combat one of the greatest health hazards plaguing our cities today—smog. We are not proud of the fact that Los Angeles' smog is world famous, and we have been making a concerted effort to control the major source of this pollution, auto exhaust emissions. In some areas of our State, autos account for 90 percent of the air pollution.

The Air Quality Act is a commendable, and much-needed piece of legislation. Many of the provisions of the bill are modeled after California's standards and we in California are most

pleased that the Federal Government is about to embark on this crucial enterprise. The Air Quality Act would set the standard for emission control at 275 parts per million of hydrocarbons. California plans to drop this to 180 parts per million in 1970 and 100 parts per million in 1975, realizing the severe health threat posed by any further air pollution. According to Dr. Joseph F. Boyle, president of the Los Angeles County Medical Association:

> A critical and worsening health crisis exists in Los Angeles County despite all efforts for its control. The pending crisis is imminent and demands that every appropriate action, however drastic be taken immediately. No further delay can be tolerated with safety.

On behalf of the millions of residents of California, I ask my colleagues in the House not to force us to take a step backwards in our fight against smog. We ask that California be exempted from the Air Quality Act. If we sought this exemption because we could not meet the minimum standards, the House should give no consideration whatsoever to our request. However, the Murphy amendment we ask for would merely allow California to adopt much higher standards, which hopefully the Federal Government will want to adopt in the near future. Our needs are too urgent now: I ask my colleagues in the House not to penalize excellence.

Mr. HALPERN. Mr. Chairman, I rise in support of this bill and wish to commend both the majority and minority on the committee for its painstaking and thorough work in coming up with an effective, meaningful bill.

I do regret, however, that the State limitation in the bill has been reduced from 12½ to 10 percent, and I hope that the legislation can be amended to restore the limit to the original percentage or at least to give the Secretary some flexibility in reallocating a portion of the unused funds when exceptional local circumstances warrant it. I also have strong reservations about provisions in section 102, subsection (c) and in section 208, which I will discuss later in my remarks. In balance, though, this is a good bill and I trust we can further improve it on the floor today. As one long concerned with the grave problem of air pollution in my own city of New York, and in other areas of our country, I have sponsored several bills dealing with atmospheric pollution, including H.R. 12098, similar to the original S. 780, an amended version of which is now before us.

The quality of the air we breathe has deteriorated in small increments over a long period of time. We have been slow to recognize just how badly the astmosphere has been contaminated. The gradual increase in industrial activity, automobile population, municipal incineration, and electric power production has enabled us casually to forget what a sweet, clean breath is like. The crowding into cities has brought many more persons in under the clouds of smog and the discomfort has been accepted as the price of progress.

But now the public has begun to weigh the social costs which accompany the use of air as a waste disposal medium. We are beginning to value the benefits of a dirt and odor-free atmosphere. The health effects from specific pollutants are beginning to be pinned down.

Some dramatic episodes such as the New York City smog last Thanksgiving Day have taught a lesson which no

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amount of public service advertising or clean air week speeches could do.

As an example, the recent change of traffic in Sweden gives a useful insight. The cars and trucks were to switch from driving on the left side

to the right side of the road. As a means of introducing the new system, the first day only taxis and buses were allowed to operate. The reduction in air pollution was quite noticeable to every citizen in the major cities. It was as if civilization had been rolled back 25 years—at least in terms of the vital air which they were breathing.

Another impact is being felt as the economic costs of pollution abatement become apparent. This year, the buyer of a new car will pay about $50 extra for exhaust control modifications to the engine. In Montana a phosphate plant has been shut down until suitable equipment to contain fluoride emissions can be installed. Additional trash trucks are on order for New York City because apartment house incinerators cannot operate without polluting the air.

We are on the move to restore and maintain air quality. And legislation must also move to accommodate to new technical information and new political requirements. That is what this bill is all about.

I am particularly enthusiastic about the provisions in the 1967 act which establish the sequence of action for clean air. We are not jumping to arbitrary emission control standards to satisfy an emotional response. Rather the bill sets up a stepwise procedure much like that followed in bringing water pollution under control.

First air quality criteria are established. These scientific quantitative relationships are needed to tell us what damage—to health, property, or esthetic values—is caused by a given concentration of pollutant which is present for a given time.

Next, society is asked to weigh the costs of abatement against the costs of dirty air and choose an ambient air quality standard. This number states the maximum amount of a contaminant which will be allowed in the atmosphere for a certain locality—in order to hold the damage down to the level selected from the criteria. Variations in weather, regional economics and geography can all be taken into account to assure that the ambient air quality standard is suitable for the area.

Finally, the emission sources are identified and controlled so that they do not release an aggregate amount of contaminant which would exceed the ambient air quality standard.

I am also pleased that the act strongly supports more research. We are not waiting for refinements of scientific data before acting. Indeed, there is much more well justified work to do than we have money for right now. However, we will need more knowledge of cause and effect relationships in human health—in order to establish criteria which will lead to legally enforceable standards. We will need new abatement techniques and devices to make pollution control cheaper and to deal with some contaminants which are not now controllable at all.

In addition to research, the act calls for wide dissemination of recommended control techniques. The fact that a feasible abatement method exists can become a powerful tool in the hands of local control officials. The industry which is reluctant to meet standards can be shown how other similar plants are handling the problem elsewhere. A dissemination program should also eliminate duplication of expensive and time-consuming technical development work.

The act provides for a study of the pollution from aircraft engines. Although this source may not account for a large percentage of the total material spewed into an air mass, those of us who live under a flight path are well aware of the increased soiling which aviation can cause. We need to get the facts on this narrow

but important aspect of air pollution.

Mr. Chairman, as I have stated, I am very much in favor of the bill in general. However, when the bill is opened for amendments after this general debate I intend to offer an amendment to allow for a more realistic allocation of funds.

Also, another phase of the bill that gives me strong reservations is section 102, subsection (c), which purports to encourage, and provide for, the formation of new regional and interstate agreements. These types of agreements are very vital to the solving of air pollution problems among the various States. For example, my own State, New York, is affected by the air pollution problems of its neighbor, New Jersey, and it is only logical that these two States ought to be able to work together under a formal agreement.

As I see it, subsection (c) of section 102, could hinder, rather than promote, regional agreements. It states:

> (c) it is the intent of Congress that no agreement or compact entered into between States after the date of enactment of the Air Quality Act of 1967, which relates to the control and abatement of air pollution in an air quality control region, shall provide for participation by a State which is not included in such air quality control region.

While this provision does not appear terribly restrictive when read in the context of the ordinary concept of a "regional" association of States, under this bill, read as a whole, the measure becomes a definite restriction upon the ability of the States to associate themselves for cooperative efforts to control pollution. The air quality control regions under this act are to be established by the Secretary of Health, Education, and Welfare, on considerations of jurisdictional boundaries, urban-industrial concentrations, and "other factors including atmospheric areas."

Thus, States deemed by the Secretary to be in different regions, perhaps because of different patterns of wind currents, could be precluded from joining together in compacts or other associations for prevention and control of pollution. This may occur in spite of the expressed emphasis in the balance of section 102 on cooperative action among the States and on the primary responsibility to States and local governments for combating pollution.

Mr. Chairman, if my conclusions are correct, I consider this subsection an infringement on the rights of each State, or group of States, to determine what is best for it in the area of air pollution. I feel subsection (c) is unnecessary and undesirable.

And finally, I also have apprehensions about section 208 which may provide that Federal regulations preempt State control of motor vehicle emissions. Mr. Chairman, it is evident to me that each State ought to retain the right to control motor vehicle emissions at the State level and to have authority, if found necessary, to set emission regulations more stringent than those currently proposed at the Federal level. For that reason, I intend to strongly support the proposed amendments which will allow State control in this area.

Apart from these reservations, I urge the passage of this bill—a needed additional congressional contribution to the fight for clean air.

Mr. DANIELS. Mr. Chairman, I rise in support of the amendment offered by the gentleman from California [Mr. MOSS] and I should like to congratulate him and all Members of the delegation from the Golden State for their concern over the problem of air pollution.

Because I have the honor to represent a constituency across the Hudson River from New York City, I am sure that I can tell all members of this House a few things about air pollution.

I think that a very excellent letter which appeared in the Jersey Journal, a leading newspaper in northern New Jersey, on October 31, 1967, is very eloquent testimony as to the voice of the people in northern New Jersey.

Mrs. Lilliam Allan is one of the most respected figures in Jersey City and has been a tireless battler for a great many good causes. This week she wrote to the Jersey Journal, in part, as follows:

> This morning I woke up gasping for breath. I closed the window as the air was full of pollution. At breakfast my husband remarked that coming home from work he could see the yellow haze of air pollution on the meadows and hanging low in the air.
>
> We have to make up our minds. What is more important, industry or the good health of the people?

Mr. Chairman, Mrs. Allan's question is very much to the point in terms of today's debate. What, indeed, is more important, the people's health or industry?

The State of California, where the problem of air pollution very literally threatens the survival of large sections of the State, has shown the way in fighting air pollution caused by automobile engines. We in the rest of the Nation have much to learn from this State.

Mr. Chairman, I would like to see more States, including my own, follow the lead California has taken. Feeling this way, I shall not be a party to defeat the forward-looking efforts of one State to solve its most pressing problem. Therefore, I am going to vote for the California amendment. It may be a long way from Hoboken at the gateway to New York Harbor to the Golden Gate, but the gentlemen from California have my support and the support of every right-

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thinking person in the State of New Jersey.

Mr. DEL CLAWSON. Mr. Chairman, today's debate has focused attention upon the emissions of the automobile exhaust as a prime contributor to air pollution. During the past several years the automobile has also been the target for many critics because of the tragic holocaust of accident and death on the highway. Government, the automobile industry, and the people who drive are keenly aware of the immediate need for quality standards of safety if we are to remedy the hazards of living in the age of a motorized society. Our efforts have been directed to many safety features in the past few months. The safety glass of windshields and car doors, steering gear, tires, seat belts, cushioned dash boards, adequate brakes, and so forth, are subject to high standards for highway safety in driving. Perhaps the most critical of all automobile safety devices necessary for the health and safety of our people, particularly in those smog-prone localities, is the control device for automobile exhaust. The illness rate, deaths, general sickness, and discomfort that result from smog and air pollutants among the people who reside in these areas are sufficient evidence to warrant the installation of such devices as standard equipment where the problems exist. In my opinion a smog-control device should be immediately classified and labeled as a safety device, a safety feature required for the health and well-being of our people.

The peculiarity of the smog problem and its serious attack in only certain areas of our country justifies special and specific remedial methods. For California to attempt to impose the added cost of smog devices on all automobiles sold in the country is certainly unjustified and unnecessary. However, California should be free to establish standards for this death-dealing health hazard, especially since the people of California will pay the

cost and administer their own program with no cost to the Federal Government or the citizens of any other State. The automobile industry itself will be paid for the increased expense for all installations of smog devices. Mr. Chairman, I heartily endorse the so-called Murphy amendment to the legislation before us today and urge its adoption when offered by the gentleman from California [Mr. Moss].

Mr. DONOHUE. Mr. Chairman, for the past several years the Congress has been rightfully and seriously concerned with the problem of air pollution, which has now become a major national danger.

This measure now before us, S. 780, represents a further important legislative step forward in more adequately meeting this danger and protecting the lives and safety of many millions of American citizens.

This current legislative proposal combines the proven values in existing programs with the additional information that has become currently available through technical probings and analyses of the factors involved in the pollution problem for the projection of a more effective corrective and containment program.

Air pollution, which is already serious in its adverse effects upon human health, certain crops and some types of property, is worsening in direct proportion to the Nation's economic and urban population growth and its continuing technological progress.

Of paramount importance, of course, are the great dangers to public health and the most authoritative evidence and testimony that has been presented and reviewed here this afternoon clearly shows that we are today faced with a most disturbing and frightening picture of a major health menace which threatens to continuously increase unless more vigorous measures are taken to contain it.

All of us here are, of course, especially in this challenging period, vitally concerned, as we should be, about prudent spending of the taxpayers' money. I submit that expenditures of our citizens' own money to protect their own lives and the lives of their family members obviously merits being placed at the very top of any priority expenditures listing. The actual appropriations recommended in this measure are entirely reasonable by any standards, the purposes of the bill are unquestionably in the great public interest and the need is increasingly urgent. Therefore, I hope that this bill will be approved without extended delay.

Mr. FASCELL. Mr. Chairman, all America is aware of the great danger to health and safety that air pollution presents. Further, as the Nation's economic and urban population, as well as its advancing technological know-how, increases, the pollution of air heightens. Without proper legislation, this problem will continue to grow. It is for these reasons that I direct my full support to the passage of S. 780, the Air Quality Act of 1967.

Although Florida, in general, and the Miami area in particular, have a low, national air pollution rate, I know that we are the exception rather than the rule. From Buffalo to Los Angeles, the need is great for Federal research and assistance in curbing the germ-filled dangers of industrial and automobile exhaust fumes which fill the air.

Each State is plagued with different problems and should be allowed the opportunity to correct them. If they are remiss, however, the Federal Government should be authorized to take over the solution of the problem. S. 780 provides for this give-and-take between National and State agencies.

The solutions of international crises

found by the United States become minimized when such a basic domestic problem as clean air is not alleviated or at least diminished.

I urge my colleagues to join with me in the support of S. 780, the Air Quality Act of 1967.

Mr. GALLAGHER. Mr. Chairman, over 2,000 years ago, Seneca referred to "the heavy air of Rome and the stench of its smokey chimneys." On January 30, 1967, President Johnson warned the Congress that " 'ordinary' air in New York, as in most large cities, is filled with tons of pollutants."

While Seneca was exercising primarily an esthetic judgment, President Johnson was talking about a condition which, over the Thanksgiving weekend of 1966, killed 80 people and caused untold suffering to many more in the New York metropolitan area.

Mr. Chairman, I rise to support the Air Quality Act of 1967. More than any previous act passed by Congress, this legislation recognizes that manmade pollution does not respect manmade political boundaries. Natural air currents blow this unnatural debris from city to city, from county to county, from State to State, and in some cases, from nation to nation.

So it must be admitted that air pollution is a truly national problem. The Federal Government has long been concerned with air pollution and I feel that much of the nationwide outcry to clean up the air is a result of the education and pioneering efforts in Washington. We have recognized our responsibility to do something about the Nation's air and the Air Quality Act of 1967 is another attempt, by the Federal Government, to take action in behalf of all the citizens. Pollution need not be the price of prosperity. If this Nation were not industralized and urbanized, there would be litle reason to be concerned about sanitizing the air. The automobile has become a symbol of affluence, but its uncontrolled use has contaminated the countryside as well as the air we breathe. A smoking chimney was, at one time, regarded as the sign of a healthy economy; it is now regarded as the sign of a soon-to-be sick society. Indeed, we have identified certain diseases—lung cancer and chronic chest conditions are the most widely known —that owe their existence in such epidemic proportion, to the poisons that we ourselves have allowed to become a part of everyday life.

I do not believe that it is possible to dispute any further the clear relationship between cigarettes and cancer. Yet all we have been able to do about this is to have a warning on cigarette packs. But by allowing industries and autos to continue to pollute our atmosphere we are doing to our society the same thing we would do to ourselves when we light a cigarette. I hope that the Air Quality Act of 1967 will be more effective than the warning on cigarette packs. Until I read the statistics which showed an increase in smoking since the Surgeon General's report, I had considered offering an amendment which would have paid for skywriters to fly over our major urban areas and spell out: "Caution: Breathing This Air May Be Hazardous to Your Health."

This act is a result of the failure of States to unite to take action against air pollution. The Clean Air Act of 1963 provided three Federal dollars for every one local dollar which was spent to establish regional airsheds. President Johnson has pointed out that this generosity did not result in the establishment of a single effective and meaningful compact which was put into operation. Unfortunately, the attempts to mount regional action and concern between States often resulted in one local official waving his sooty

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fingers in front of the sooty face of an official from another locality. In spite of its widely heralded advance billing, the New York/New Jersey Pollution.

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Control Conference produced very few positive results. Officials of both States clamped down the visor on their own armor and rushed pellmell into battle to defend their own fiefdom from attack, and the Hudson River was treated by both parties as some sort of a moat.

I do not single out the New York/New Jersey conference for any special blame. Almost the same thing has happened everywhere the formula of voluntary cooperation has been tried. The Air Quality Act of 1967 is a recognition that State lawmakers have too much interest in their own "territorial imperative" to do the imperative job of cleaning the air.

After the Secretary of Health, Education, and Welfare has established atmospheric areas and air quality control regions, he will then develop and issue air quality criteria and recommend control techniques to achieve levels of air quality sufficient to safeguard the health of the citizens within the regions. This is the essence of the Air Quality Act of 1967 and it will meet, in my judgment, the clearly established failure of the States to cooperate. He will also have the power to see that his standards are complied with by initiating enforcement action at the Federal level.

By creating enforceable standards at a Federal level, I feel that a great step forward has been taken. Let us consider these two aspects of the legislation under discussion a little more closely, because there is sure to be the traditional cry to which Congress has been over-responding recently, that all actions must be controlled within a State.

First, there is the matter of standards. These emission control levels for identified pollution sources are long overdue. The Department of Health, Education, and Welfare has done a fine job of educating the public and it has an opportunity to again be the major focal point of the campaign against dirty air by establishing intelligent and workable standards for these specific pollutants within specific regions. Many large industries have already been identified as a major source of pollution and one is tempted to say that they will not spend any money just to improve their public image. But this is obviously not true. Private concerns spend millions of dollars each year in public relations and advertising: a seemingly endless flow of gaudy brochures and press releases hailing significant breakthroughs. These national efforts of companies must be brought into the local picture, for the people who live around industrial plants get a much more lasting and constant image. Their paint peels from their houses, their flowers wither and die, the common cold becomes consistent, and uncommon congestion and death frequently results.

Air pollution control must be made just as much of a standard operating expense as is the advertising budget. Industry can be made to act and in its own interest it must be made to act. There will naturally be cries of prohibitive cost, but skimming a little history might be informative. When the child labor laws were forced upon unwilling industries, there were dire predictions of ruinous expense. Doors had to be remade so adults could pass through, for example. Yet an aroused public demanded action and this inhumane practice was stopped. I am sure that the industry will be able to meet intelligently drawn standards and yet still meet its payrolls.

By allowing the Federal Govern-

ment to initiate enforcement procedure, another very significant step has been taken. Once again, a little history may make the problem easier to understand. When the Supreme Court outlawed segregated schools in 1954, there were firm statements from many local officials that integration would never take place in their areas. Now we see how people who once vowed implacable opposition have actually allowed Negroes and whites to go to school together. While integration has not proceeded as fast as many of us had hoped, it is a fact that massive resistance has been replaced by a resigned sigh.

If pollution standards are realistically drawn and effectively enforced on the Federal level, the local men will be freed from a crushing dilemma. He can say that he really does not want to fine or close down the plant—or integrate the school in our historical example—but the law is the law and it must be obeyed. It is all too easy for a powerful local industry to refuse to comply with regulations established within its own community, and by enforcing standards set by the Federal Government, this arrogant stand can be controlled.

Once industry can be made to realize that pollution abatement is a necessary cost to doing business, it is so inventive and so creative that it can do the job. For example, Detroit said for years that there was no smog control device for automotive exhausts. Yet, when California passed its laws, it was only a short time before an inexpensive device was ready. Further, the strict Los Angeles law enforcement caused 64 previously unknown pollution control inventions to be made in a short time. The by products frequently paid for the cost of their installation. When faced with a firm requirement to consider social costs as well as production and distribution costs, American industry is amazingly capable of solving problems.

Mr. Chairman, unless we wish to view the future through gas masks, the House must today pass the Air Quality Act of 1967.

Mr. RODINO. Mr. Chairman, I rise in support of S. 780, the Air Quality Act of 1967. Since 1963 we have made important strides toward trying to reverse the upward trend of air pollution in our Nation. We have supported local air pollution programs, as well as State and interstate programs. But in spite of this the problem is getting worse, not better.

There is no question now that we must have a real cooperative movement on the part of all concerned.

This is a very important piece of legislation, and while it does not contain everything we would like, it is a good bill and a strong bill. It will, however, require the greatest effort on the part of the States to make sure that standards of air quality to protect the health of our people are rapidly established and enforced.

Our poisoned air must be made clean. As the President's message on air pollution pointed out:

> The poisons of air pollution aggravate respiratory problems in man—asthma, bronchitis, lung cancer and emphysema. Emphysema, a lung disease, is one of the fastest growing causes of death in the United States today. And it forces more than a thousand workers into early retirement every month.
>
> Polluted air corrodes machinery. It defaces buildings. It may shorten the life of whatever it touches—and it touches everything.
>
> This is not a problem of our largest cities alone, Weirton, W. Va., and Gary, Ind., are two among many communities that suffer days when the sun seems a pale orange ball hidden in a noxious cloud. Small towns, farmlands, forests—men, animals, and plants—are all affected by the waste we release into the air.
>
> The economic loss from pollution amounts to several billions each year. But the cost in human suffering and pain is incalculable.
>
> This situation does not exist because it

was inevitable, nor because it cannot be controlled. Air pollution is the inevitable consequence of neglect. It can be controlled when that neglect is no longer tolerated.

It will be controlled when the people of America, through their elected representatives, demand the right to air that they and their children can breathe without fear.

Earlier this year the States of New York and New Jersey, in conjunction with the Federal Government, agreed to form the Mid-Atlantic States Air Pollution Control Commission compact. This compact was conceived at a time when the original administration bill was pending. The House Committee on Interstate and Foreign Commerce reported the Air Quality Act of 1967 several weeks ago, and its criteria and standard setting provisions are somewhat different from those of the original administration bill. In general, however, the Mid-Atlantic States compact's provisions would still mesh reasonably well with the Air Quality Act, if it is agreed to by the Congress and the President. The Federal Government may find that several reservations might be required because of the changes in the Air Quality Act in order to make the act and the compact compatible. It seems reasonable to hope that just as soon as congressional action on the bill is completed, we can expect rapid action on the part of the administration as to the agency reports on the compact. We need both entities, and I am hopeful that the passage of this bill will speed enactment of the compact, for one is the logical extension of the other.

There is no question as to the commitment of the Congress to the abatement of air pollution. There is also no question of the desire of New Jersey and New York to move positively and rapidly to obtain relief for the citizens of these States. I am sure that with the cooperation of these States and the Federal Government, we can do the job that is so urgently needed.

Mr. CORMAN. Mr. Chairman, I support the amendment proposed by my colleague from California, JOHN MOSS, to permit California to keep on running its own program for auto-caused air pollution, and I urge the support of the other Members of the House for this amendment.

The purpose of this amendment is not to create an unnecessary burden tion as to agency reports on the or ex-

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pense for the residents of States which do not have a strong air pollution problem, but rather to permit the people of California, who face a smog problem of the greatest magnitude, to exercise their police power over their own automobile owners in an effort to control pollutants caused by their automobiles.

The uniqueness and the seriousness of California's problem is evident—more than 90 percent of the smog in our urban areas is caused by automobiles, and in the next 15 years the number of automobiles in the State will almost double. This is not the case in most other States. That is why other States have not set or enforced such stringent standards for automobile emissions as we have.

Californians were the first in the country to recognize the automobile smog problem. We recognized long ago that we must have more stringent standards than the 1966 national standards, for example, or else face, by 1975, automobile-caused smog which would render our State uninhabitable.

Californians are willing to bear the extra expense required for air pollution control devices on our automobiles. We have been gratefully doing so for some time now, for we are indeed desperate to rid ourselves of this health menace. We only want the opportunity to continue to do so.

Mr. BLATNIK. Mr. Chairman, air, like water pollution, is not going to disappear unless we have an all-out, concentrated effort to abate this menace. The air pollution threat to the health of our fellow citizens is a very real thing. A parade of witnesses has documented this case over and over again. It is time we accept the facts and move on with an abatement program that is in keeping with the task at hand. The health menace of air pollution alone should drive us to immediate action on every front.

Our expanding population, the proliferation of sophisticated chemicals and the constant new means of manufacturing all combine to make protection of our air supply an even more vital concern. We have long acknowledged the problem. It is time we take concrete corrective action on air pollution abatement and I am proud, Mr. Chairman, to rise in support of this legislation.

Mrs. DWYER. Mr. Chairman, the pending Air Quality Act of 1967, I believe, represents the broadest and potentially most effective attack the Congress has yet launched against one of our most dangerous natural enemies—the pollution of the air we breathe. I urge our colleagues to join in giving this legislation the overwhelming support it deserves.

I shall not take the time of the House to describe the hazards of dirty air. They are already depressingly well known to all of us, especially those who represent areas subject to pollution and to the air inversions which capture and intensify the harmful effects of pollutants. The RECORD has been full of the evidence which has contributed to the present sense of national urgency about arresting the growing threat, and I would refer at this point to only one of several statements I have previously made on the subject—an article I wrote for the New Jersey Education Review which was printed in the RECORD of February 3, 1966.

As one who represents a district within the Metropolitan New York-New Jersey region, I have been all too familiar with the problems of air pollution for many years, and during my service in the New Jersey State Assembly I was instrumental in enlarging the jurisdiction of the interstate sanitation commission to deal with the problem. I am, therefore, deeply gratified that the Congress is moving forward and taking effective steps to protect our people from premature death and disability.

Under the Clean Air Act of 1963 and its amendments of 1965 and 1966, Mr. Chairman, we have made important progress in combating air pollution. State and local activities have been increased. Federal abatement action in interstate areas has been undertaken, national standards for the control of motor vehicle pollution have been promulgated, and research in methods of pollution control has been stimulated. Nevertheless, these activities have been too limited, too local, and too slow. The sources and effects of air pollution have exceeded our efforts to control them.

The present legislation offers a real possibility that we may yet reverse the imbalance—and in time to prevent future disasters. Under this bill, all the resources presently available to the Government would be continued. In addition, however, new weapons would be added to improve air quality standards, to encourage regional planning and control activities, to increase financial support for such activities, to stimulate non-Federal agencies to exceed Federal standards and achieve higher levels of air quality, to undertake new studies leading to more effective control, better trained manpower, and more reliable information about every aspect of air pollution.

The principal significance of this bill, Mr. Chairman, as I see it, is that it recognizes the regional, as opposed to local, character of air pollution, that it equips the States and the Federal Government with greater resources to combat pollution, and that it provides for enforcement on the national level if reasonable action to comply with necessary standards should not be taken at other levels.

The health and welfare of our people are at stake, Mr. Chairman. We can no longer afford half measures in the face of galloping pollution. Either we control pollution with reasonable measures and effective cooperation or we invite severe disasters and stringent public action in the future. There is not, according to the committee report, a single major metropolitan area in the country which does not have an air pollution problem. There are few, if any, areas where control is adequate under existing conditions. And there is no place in the country where greater problems—from more automobiles, more people, more power—do not lie ahead. We all know these basic facts. We can never again plead ignorance.

Mr. HORTON. Mr. Chairman, I am pleased to rise in support of the Air Quality Act of 1967. This bill, like H.R. 698, the air pollution control measure I introduced on the first day of the 90th Congress, recognizes that air pollution is a problem which disregards the jurisdictional bounds of States and local government units. To effectively mount an attack on air pollution we must develop administrative units the dimensions of which are determined by geographical factors, prevailing wind currents, and certain other atmospheric conditions.

I am pleased that we are acting at this early date to adopt such a regional approach to combat air pollution. Had we acted earlier to adopt a regional approach in the fight against water pollution we might not now be confronted with a water quality crisis.

Under this bill the Secretary of Health, Education, and Welfare will promulgate air quality criteria for the various regional air sheds and the States will establish and enforce air quality standards. This partnership of State and Federal Governments is similar to the partnership which has been formed to combat water pollution. I am confident that it will prove equally effective.

Part of the reason I am confident we will be sucessful in our fight against air pollution is the fact that an ever-increasing number of industries are committing vast sums of money to the fight. In the congressional district which I represent, the Rochester Products Division of General Motors and the Eastman Kodak Co. have this year made multimillion-dollar investments in air pollution control equipment. Many other industries in the district have also recognized their social responsibility and made investments in pollution abatement equipment that, although smaller in dollar amount, are proportionately as significant.

I take this opportunity to call to the attention of my colleagues H.R. 11452, a bill which I introduced earlier this year to encourage the construction of water and air pollution abatement facilities by allowing a double investment tax credit for investments made in such facilities. Enactment of this legislation would do much to encourage the further cooperation of business and industry and ease the financial burden on those firms which join in the pollution fight.

The bill before us today, farsighted and responsible action by business and industry, and additional legislation such as the bill I have just mentioned can be combined to purify the air upon which we all depend. I urge my

colleagues to join me in supporting this much needed legislation.

Mr. GILBERT. Mr. Chairman, I rise in support of the Air Quality Act to provide systematic pollution control on a regional basis. I was one of the original sponsors of this proposal.

The intentions of the bill are good and primarily pave the way for the control of all pollution problems on a regional basis in accordance with air quality standards and enforcement plans developed by the States.

This is an important step toward combating one of our country's most serious problems. The Federal Government is given the role of guidance in providing critical and scientific information on how to cope with the health hazard. Yet, the States have the respon-

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sibility of setting standards and enforcing measures to meet their specific regional standards. The Department of Health, Education, and Welfare will continue current programs for air pollution control and research, but will provide systematic control of air pollution activities on a regional basis, the regions based on such factors as urbanization, industrialization, and topography. Standards of air quality will be tailored to each region, based on criteria presented by the HEW, on which the States will set their own required air quality standards. In emergency situations, where immediate action is required, HEW will have the power to take action. An Air Quality Advisory Board of 15 members to advise and consult with the Secretary of HEW and make recommendations, will be appointed by the President.

Mr. Chairman, I urge my colleagues in the House to join me in voting for passage of the Air Quality Act.

Mr. FARBSTEIN. Mr. Chairman, I rise in support of S. 780, the Air Quality Act of 1967. I support this legislation basically because I believe air pollution is a nationwide problem requiring a nationwide Federal program.

The harmful effects of air pollution on the health of our citizens has been well documented. I have only to cite the singularly tragic incident of Thanksgiving 1966 which resulted in the death of 40 to 80 people in New York City. A stagnant air mass played havoc with the residents of our largest city for 4 days as we stood helplessly by. My own 19th Congressional District is in the very heart of New York. The people there can well attest to the effects of air pollution.

Air pollution affects more than just the public health. It can be put in more basic economic terms, in dollars and cents terms. It has been estimated that air pollution will result in an economic loss of over $11 billion annually. Air pollution means less healthy people, which results in more time away from the job.

But the effects of air pollution are not only local in nature. Polluted air masses hold no city, county, or State boundaries sacred. Pollution in New York, for instance, will directly affect the surrounding areas of New Jersey and Connecticut, and vice versa.

In my opinion, the Air Quality Act offers a positive program for combating air pollution. It authorizes the Secretary of HEW to set up interstate air quality control regions with the Federal Government paying up to 100 percent of the cost for up to 2 years. It further directs the Secretary to establish air quality criteria and to provide the latest information on air pollution control techniques to the States.

The States are expected to carry the fight against pollution. As participants in the air pollution regions, they could set air quality standards and

adopt a plan for their enforcement and implementation.

There is a great need for a comprehensive research effort on air pollution. The bill authorizes the Secretary of HEW to initiate a program of research and training. It further directs the Secretary to make the results of this research available to State and local agencies. Such a program prevents duplication of efforts among State and local agencies, yet provides for a responsible and responsive research program on the national level.

Some Members of the House have proposed an amendment to the section establishing Federal motor vehicle emissions standards. This amendment would exempt the State of California from these Federal standards. I oppose this amendment. I oppose giving any one State a specific exemption. If any exemption should be made, it should be one exempting all States to establish more stringent standards to take care of special local problems. Essentially, though, I believe establishing motor vehicle standards remains a Federal Government job.

Mr. Chairman, the Air Quality Act provides for a coordinated effort between local, State, and Federal governments to combat air pollution. It authorizes a total of $362 million for a 3-year period to meet that end. I support this bill and urge passage of this important social legislation. We cannot allow air pollution to go unchecked.

Mr. ASHLEY. Mr. Chairman, 4 years ago we launched a national attack on air pollution with the Clean Air Act of 1963. Under this act and its 1965 and 1966 amendments we made great strides in air pollution control. We initiated several interstate abatement actions which will ultimately benefit millions of people; we published standards which are bringing all new automobiles under control beginning with the 1968 model year; we have begun to increase our research efforts and have begun to make progress toward the control of sulfur oxides and other important gaseous pollutants which were once clearly beyond our reach. Through the matching-grants provision of the Clean Air Act, State and local control programs have been able to increase their budgets from less than $13 million before its passage to approximately $26 million during the current year.

But as the administration was the first to point out, we have only begun. Last January, in recommending that the Congress adopt the Air Quality Act of 1967, the President said:

> The pollution problem is getting worse. We are not even controlling today's level of pollution. Ten years from now, when industrial production and waste disposal have increased and the number of automobiles on our streets and highways exceeds 110 million, we shall have lost the battle for clean air—unless we strengthen our regulatory and research efforts now.

In the years ahead, air pollution will worsen in direct proportion to the Nation's economic growth, increases in urban population, demands for heat and energy, use of motor vehicles, disposal of refuse, and production and consumption of manufactured goods. Given the fact that all these factors are rapidly increasing, it is reasonable to assume that it will not be long before air pollution reaches truly critical proportions in many parts of the country. To avoid the impending dangers to the Nation's health and welfare, both our research efforts and our regulatory activities must be strengthened. Strong regulatory programs are needed to insure full application of economically feasible methods of controlling pollution at its sources.

The proposed Air Quality Act would strengthen regulatory measures to prevent and abate pollution of the

air, and would provide for expanded research on the causes and control of pollution of the air. The bill would also empower the Secretary of Health, Education, and Welfare to make certain that State governments meet their responsibilities.

The Air Quality Act of 1967 would provide the tools and the impetus, the fuel and the thrust to move ahead in a desperate race against catastrophe. The approach is sound. The need is urgent. I strongly support enactment of this bill and urge my colleagues to join in passing it.

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Mr. MOSS. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Moss: On page 97, strike out lines 3 through 20, inclusive, and insert in lieu thereof the following:

"(b) The Secretary shall, after notice and opportunity for public hearing, waive application of this section to any State which has adopted standards (other than crankcase emission standards) for the control of emissions from new motor vehicles or new motor vehicle engines prior to March 30, 1966, unless he finds that such State does not require standards more stringent than applicable Federal standards to meet compelling and extraordinary conditions or that such State standards and accompanying enforcement procedures are not consistent with section 202(a) of this title."

Mr. MOSS. Mr. Chairman, the amendment before this Committee bears my name, but it is offered on behalf of 37 members of the California congressional delegation, representing the entirety of its strength in this House, from both political parties. It reflects the measure of our concern over a problem unique to our State.

The amendment is the same language, word for word, as was adopted unanimously by the other body. It provides that California may establish more stringent standards applicable to emission covered by Federal standards and may also establish and enforce standards with respect to emissions, such as nitrogen oxides, not covered by Federal statutes.

California is not, however, given a blank check by this amendment. First, the Secretary must give notice and an opportunity for a hearing, and then he must waive the preemption of California laws unless he finds, first, that compelling and extraordinary conditions do not exist, and, second, that California standards are not consistent with the test of economic practicability and technological feasibility required by section 202(a) of the act, and, third, that the accompanying enforcement procedures are in conflict with the intent of section 202(a).

The amendment permits California to continue a role of leadership which it has occupied among the States of this Union for at least the last two decades. As I said in general debate, it offers a unique laboratory, with all of the resources necessary, to develop effective control devices which can become a part of the resources of this Nation and contribute significantly to the lessening of the growing problems of air pollution throughout the Nation.

Let me make it very clear that while the meteorological problems of California are unique, it is not the only State in the Union with a concern over air pollution, but it is the one where the problem is greatest at the moment. It affects not only the automobile driver, but it has reached proportions in southern California where it affects air traffic.

When we go back into the House, I will ask permission to include in the RECORD at this point a letter from the Administrator of the Federal Aviation Administration, pointing out the adverse impact of the present smog conditions in southern California on air traffic.

DEPARTMENT OF TRANSPORTATION,
FEDERAL AVIATION ADMINISTRATION,
Washington, D.C., November 2, 1967.

HON. JOHN E. MOSS,
House of Representatives,
Washington, D.C.

DEAR MR. MOSS: This is in reply to your telephone request regarding the effects smog has on aviation in the Burbank-Los Angeles area.

Smog definitely has an adverse effect on aviation in the Los Angeles basin area, primarily in the obstruction of visibility, and in the creation of special problems for aircraft landing, taking off, or on low level, enroute flights. Major airports where smog conditions deter operations are: Los Angeles International, Long Beach, Burbank, Van Nuys, and Santa Monica; it also affects operations at numerous general aviation airports in the area.

General adverse effects of smog are to: (1) slow down the rate of utilization of airports; (2) reduce pilot capability "to see and be seen" so as to avoid collision with other aircraft; (3) increase the workload in the air traffic system in providing for safe operations; (4) require more aircraft to operate under special air traffic procedures.

I hope this will provide you with the information you need on some of the problems associated with smog.

Sincerely,

WILLIAM F. MCKEE,
Administrator

These can only be solved by standards more stringent than those presently contemplated under Federal regulation.

We have proposed in California by State law a system of standards going through 1970. They will be significantly more drastic than the standards which will be required in the rest of the Nation. They will not constitute a burden on the automobile industry.

My State consumes between 11 and 12 percent of the total new cars sold in this Nation every year. This is a very rich market, greater than any offshore market enjoyed by any manufacturer of automobiles in the United States.

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I might also point out that it is not unusual in the automotive industry for there to be variations in assembly. All Members know there is virtually a limitless possibility of combinations of power packs and accessory packages one can order on an automobile.

The CHAIRMAN. The time of the gentleman from California has expired.

Mr. CHARLES H. WILSON. Mr. Chairman, I move to strike the requisite number of words, and I rise in support of the amendment.

Mr. Chairman, I will yield to my colleague from California if he wishes to continue his remarks.

Mr. MOSS. Mr. Chairman, I just want to make a few very brief additional observations.

It is not unusual for California to take leadership in the field of auto safety. As long as I can remember the Legislature of California has concerned itself with making automobiles safer, from the days when it required safety glass, and was one of the pioneers in that field, to the days of requiring reflectorized taillights, improved headlight standards and windshield wipers.

California has led because the automobile has been the mode of transportation in a State which grew up without the mass transit systems available in the metropolitan areas of many other States of the Nation. But the very fact that it has depended on the automobile has created the problem.

The State, as I indicated earlier, for at least 20 years has invested its resources, developed its technology, and given leadership to the Nation. This amendment would permit that type of leadership to continue.

Mr. JOELSON. Mr. Chairman, will the gentleman yield?

Mr. CHARLES H. WILSON. I am glad to yield to the gentleman from New Jersey.

Mr. JOELSON. The gentleman mentioned California several times. Would the amendment also include

any other State which might feel it had an unusual problem and wanted more stringent regulations?

Mr. MOSS. No. This deals with a State which has enacted prior to March 30, 1966, standards which are more stringent than those which would be proposed by the Secretary.

Mr. JOELSON. Could the gentleman tell me whether this does, in effect, apply to any other State?

Mr. MOSS. To my knowledge, it does not apply to any other State.

Mr. JOELSON. I thank the gentleman.

Mr. MOSS. I thank the gentleman for yielding.

Mr. CHARLES H. WILSON. Mr. Chairman, I rise today to focus an immedate problem facing not only my State of California, but the Nation as a whole. I am speaking of the worsening air pollution crisis. I say worsening because in my city of Los Angeles, the smog-warning days classified by the Los Angeles Air Pollution Control District, have increased drastically over the last few years. In 1964 there were 80 such days. In 1965 there were 82 and in 1966 it jumped to 98. As of yet, there is no estimate for this year, but if the present trend continues the number of smog-warning days will pass 100. Even while California has been the leader in the fight against air pollution, we still have a serious smog problem, proving that stronger not weaker controls must be adopted. Under the proposed Clean Air Act of 1967, the Secretary of Health, Education, and Welfare would be authorized to enforce legislation standards regarding automobile exhaust emissions. These standards would be no better than those California already has. Yet, under the bill to be considered today, the Federal laws would preempt or take precedence of any State laws. As we all know, it can be quite difficult to get changes made in Washington. California would have to convince Federal officials of the need for such changes. Large automobile and oil company interests might find the needs to be very costly and could use delaying tactics that would hold up the implementation of the higher standards of California. Senator GEORGE MURPHY recognized this fact when the Senate passed this same bill. He then amended the legislation so that California was excluded from the appropriate provisions which would allow the State to establish tougher regulations.

I, therefore, call on my colleagues on both sides of the aisle to remove barriers to a more effective protection against air pollution.

Mr. Chairman, we must take every appropriate action, however drastic, and we must do it immediately. The health of our people demands that no further delay be tolerated.

It is extremely important, therefore, that the amendment to the Air Quality Act of 1967 sponsored by the distinguished gentleman from California [Mr. MOSS] be enacted by the House in order that this legislation can be implemented in its proper form.

Mr. DINGELL. Mr. Chairman, I rise in opposition to the amendment.

Mr. Chairman, there has been a great deal of smog today. Not all of it is in California. A good deal of it relates to the language of the bill that we have before us and to the language of the amendment that we have before us.

First of all, when the various air pollution bills came to the Congress, they provided a total preemption over all automotive emissions. This concept of preemption was first embodied in the law that was passed by this Congress in 1965. The legislation offered by the chairman of the committee, and the legislation sent by the administration and introduced

originally by Senator MUSKIE and introduced by me on the 10th of January of this year provided for preemption and for Federal emission controls on pollutants from automobiles and other sources.

Now we are told today that this amendment was adopted 88 to zero in the other body. The answer is that it was not adopted 88 to zero, but it was put in the Senate committee and was accepted on the floor. There was no controversy about it in the Senate committee.

There is a great deal of misrepresentation as to what the language of the committee will do. The committee bill says the Secretary of HEW will fix high standards, such standards as are necessary to protect the health and welfare of the persons everywhere in this country over automotive emissions. Then it goes further—to protect the concerns and the interests and the health of the people of the State of California. It says that upon the request of the State of California, that the State may secure such additional stronger, more vigorous standards as the circumstances require. To say that the Secretary of HEW is not going to take into consideration the pleas of the State of California for additional or for stronger standards is to fly into the face of reason, in the face of the language of the legislation, and in the face of political reality and political necessity, because no Secretary of HEW, regardless of where he comes from, would fail to provide for the health of a large segment of the American people.

I would be among the most critical members of this body if the Secretary were to fail to fix standards that were adequate to meet the needs of the State of California.

We hear the statement that this is States rights. I want to lay this red herring to rest for good and all, because there is nothing more clear than that the amendment offered by my good friend from California—and he is my dear friend, because I have sat next to him on the committee for 10 years—is nothing more or less than special preference. This amendment is nothing more or less than an attempt by a few politicians in California—and I am not referring to my friends and colleagues here in the House of Representatives but by a few politicians in the State of California——

Mr. MOSS. Mr. Chairman, will the gentleman yield?

Mr. DINGELL. I will be glad to yield but in just a minute. I respectfully have to decline to yield, Mr. Chairman, and I ask for regular order in spite of my affection for the gentleman from California.

This is nothing more or less than an attempt of a few people in the State of California to get for the air pollution control administrator of California a preference which by law we are denying the air pollution control administrators of every other single State in the Union. It is nothing more or less than the attempt to get something which the people of every other State are being denied. There is no States rights here. This is only special preference.

Let us look at this in the cold light of reason.

If the Federal Government would fix standards so low as to jeopardize the health of the people of California under the language of this amendment, it is very clear that they would be jeopardizing the health of the people in each and every other State in the Union, and would be flying in the face of legislative history, in face of the language of the report and the language of the legislation.

The CHAIRMAN. The time of the gentleman from Michigan has expired.

(By unanimous consent, Mr. DINGELL

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was allowed to proceed for 5 additional minutes.)

Mr. MOSS. Mr. Chairman, would the gentleman yield?

Mr. DINGELL. I will be glad to yield to my friend from California.

Mr. MOSS. I just want to say that I hope that the gentleman is not intending to exclude me from the ranks of politicians, because I with great pride accept the label of politician. And I want my friend to know that I have not been under the pressure of any politicians other than that of my conscience and the people I represent here in this House.

Mr. DINGELL. I am certain, I say to my good friend from California, I will be happy to extend to my beloved friend from California the privilege to number himself among the ranks of politicians if he so chooses.

Mr. KUPFERMAN. Mr. Chairman, will the gentleman yield?

Mr. DINGELL. I yield to the gentleman from New York.

Mr. KUPFERMAN. Mr. Chairman, not being a Californian, I would like to speak from the point of view of a New Yorker for the benefit of the whole country, and my question to the gentleman is this:

Would the gentleman accept an amendment which I am prepared to offer at the next round which would allow each individual State to have the same privilege that is now being asked for California?

Mr. DINGELL. I will state to the gentleman that I have not seen his amendment, and I must confess to the gentleman that I do not believe it would be in the public interest. I believe what we want are high nationwide standards which will be adequate to protect the health of everyone everywhere.

I do not believe we want to have 50 different standards in 50 different States, and production of 50 different auto types for 50 different States. I do not believe such to be in the public interest, or in the interest of the consumer, or the people that the gentleman represents.

I would like to yield further, but I do have some other things I wish to say, and so I have to respectfully decline to yield to my colleagues. There have been a great many things said by some of my good friends from California which tend to create an entirely misleading and entirely erroneous legislative history with regard to the language of the committee bill.

I do not want, as one Member of this body, to see this Congress permit a piece of legislation to go forward without a clear repudiation of the misleading impression that persons in the State of California have sought to foist upon the public of this country, that this legislation is not adequate.

It is the intent of the Congress, through this legislation, to fully and adequately protect the health and welfare of people everywhere, not just in California, but everywhere in the United States.

Now, I would point out to my colleagues that automobiles are highly ambulatory. They move across State lines. At any given time any single State has large numbers of automobiles which enter its borders from other States. Automobiles are used and sold across State lines, and it is for this reason, in order to be sure that the public are protected by a high set of standards, that it is highly important that we have one source originating the standards dealing with automobiles and automobile emissions.

The committee bill provides that desirable uniformity of regulation, and that desirable uniformity of ad-

ministration which is so important to good legislation, and provides adequate safeguards from the standpoint of pollution.

Now, I want to read something which I believe will set forth very clearly the legislative history of this legislation, and that is a letter received by me yesterday from the Secretary of the Department of Health, Education, and Welfare; a portion reads as follows:

> We believe that the interests of California can be adequately protected if the bill under consideration in the House is agreed to. There is no reason to believe that future relationships between the national program and the California program will be impaired by the passage of this bill. The Department would, of course, do everything that it can to activate and enforce whatever standards are promulgated for California by the Secretary after public hearings, as outlined in Section 208. This Department, through the National Center for Air Pollution Control, will make every effort to cooperate with the California program in every way to meet their clean air objectives.

Under this amendment, either as a matter of law or as a matter of politics, the Secretary would be compelled to present high standards to protect the interest not just of the people of the Nation but of the people of the State of California.

Mr. MOSS. Mr. Chairman, will the gentleman yield?

Mr. DINGELL. I am glad to yield to my colleague.

Mr. MOSS. I would like to call your attention to a speech made in Louisville, Ky., on May 25 of this year by John T. Middleton, director of the National Center for Air Pollution Control, Bureau of Disease Prevention and Environmental Control of the Public Health Service in Washington in which he states:

> Our basic aim is to provide uniformity and stability in pollution control levels *in cooperation* with industry and local governments. This aim is underlined in recommendations that:
>
> All industrywide emission levels be developed in consultation with the industry concerned:
>
> Each State be provided the opportunity to adopt equivalent levels—or stricter ones, and that,
>
> The Federal levels would be applied and enforced only in those States which do not adopt their own.

The CHAIRMAN. The time of the gentleman has expired.

Mr. DINGELL. Mr. Chairman, I ask unanimous consent to proceed for 5 additional minutes.

Mr. ASHBROOK. Mr. Chairman, I object.

The CHAIRMAN. Objection is heard.

PREFERENTIAL MOTION OFFERED BY MR. DINGELL

Mr. DINGELL. Mr. Chairman, I offer a preferential motion.

The Clerk read as follows:

> Mr. DINGELL moves that the Committee do now rise and report the bill back to the House with the recommendation that the enacting clause be stricken out.

The CHAIRMAN. The gentleman from Michigan [Mr. DINGELL] is recognized.

Mr. DINGELL. Mr. Chairman, I want to say I appreciate what my good friend, the gentleman from California, has said. But what he has said has nothing to do with the language of the legislation now before this Committee.

I want to challenge any Member of this body to point out one word or one paragraph or one section in the legislation which offers less than the adequate standards to meet the needs of the health and welfare of the people of the United States or of the people of the State of California.

Mr. ROYBAL. Mr. Chairman, will the gentleman yield?

Mr. DINGELL. I yield to the gentleman.

Mr. ROYBAL. I would refer the gentleman to the very section that we are discussing at the present time. What it actually does is to make it necessary for the State of California

to have to come to the bureaucracy here and to prove something that the State has known for many years.

Mr. DINGELL. Now the gentleman heard my challenge and the gentleman well heard what I said to him. I said I defy him or any other Member of this body to point to one word, to one sentence, to one paragraph, to one section in that amendment which authorizes or requires the Secretary of Health, Education, and Welfare to fix any lower standards for the protection of the health of the people of this country or of an individual State. I say to the gentleman from California, that he has not so indicated.

Mr. MOSS. Mr. Chairman, will the gentleman yield?

Mr. DINGELL. I am delighted to yield to my colleague.

Mr. MOSS. I would defy my very good friend to point out one word or paragraph which imposes upon the Secretary a requirement to the contrary.

Mr. DINGELL. I have read to my good friend from California my interpretation of the amendment. As the gentlemen well knows, the people of California recognize me as the author of this amendment, as does the gentleman, and indeed, as do the whole California delegation. I have tried today as I have on other occasions to clear up the smog of misunderstanding, ignorance and misrepresentation which has surrounded this amendment through the efforts of certain persons in the State of California.

In addition to that, I read to my beloved friend from California the language of how the Secretary intends to interpret the committee bill. That is why I say there is effort by some persons in the State of California to deceive and mislead as to what the whole intention of the author of the amendment, as to what the effect is.

Mr. ROGERS of Colorado. Mr. Chairman, will the gentleman yield?

Mr. DINGELL. I yield to the gentleman.

Mr. ROGERS of Colorado. In the

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beginning of your statement, you made some reference to preemption. Did you mean by preemption that the Federal government by the passage of this legislation took complete control of the smog or clean air program or solution?

Mr. DINGELL. I would refer the gentleman to the language of the bill, but I would say what he has said is correct insofar as the requirement of emission control devices on new automobiles. That is the point at which preemption takes place. I have tried to answer the gentleman's remarks. I have only a limited amount of time, and I wish to contiue to remark about some other points which I think are of extreme importance.

My good friend from California mentioned Mr. John Middleton. I think the House of Representatives should have this thought very clearly before it at this time, because it has been charged that California will have to go before a Federal bureaucracy that is not sympathetic. The answer is that the bureaucrat who will be administering the Federal agency is Mr. John T. Middleton, who is director of the National Center for Air Pollution Control. He is a former professor and former director of the University of California Statewide Air Pollution Research Center, and who served as chairman of the California Motor Vehicle Pollution Control Board.

Let me just point out some other facts. We are faced with Californians who are a little like the position of the farmer who had an overgrown weed patch. He was approached by the county agent who said, "Let me show you how to farm better."

The farmer said, "Don't bother. I'm

not farming as well as I know how right now."

The answer to the argument of some of our friends in that Californians right now are enforcing emission-control devices on either exhausts or on crankcase hydrocarbons or on hydrocarbons coming from carburetors or from gas tanks on the 80 percent of the cars that are operating on California roads which are in excess of 2 years old. I say that if California wants to do a good job on controlling air pollution, they can commence right there, by cleaning up the pollution from existing automobiles on its highways.

Mr. MOSS. Mr. Chairman, I rise in opposition to the preferential motion.

The CHAIRMAN. The gentleman from California is recognized for 5 minutes.

Mr. MOSS. Mr. Chairman, I shall not use 5 minutes. I am certain that my very good friend from Michigan does not really want the enacting clause stricken from this bill. I urge, therefore, that we vote against the preferential motion and proceed to perfect this bill in a logical and reasonable manner.

The CHAIRMAN. The question is on the preferential motion offered by the gentleman from Michigan.

The preferential motion was rejected.

AMENDMENT OFFERED BY MR. JOELSON TO THE AMENDMENT OFFERED BY MR. MOSS

Mr. JOELSON. Mr. Chairman, I offer an amendment to the amendment offered by the gentleman from California, Mr. Moss.

The Clerk read as follows:

Amendment offered by Mr. JOELSON to the amendment offered by Mr. MOSS: After "(b)" insert "(1)" and at the end of the matter proposed to be inserted add the following:

"(2) This section shall not apply to any State which adopts standards for the control of emissions from new motor vehicles or new motor vehicle engines identical to those of any State with respect to which there has been a waiver under paragraph (1) of this subsection so long as such waiver and such identical standards both remain in effect."

The CHAIRMAN. The gentleman is recognized for 5 minutes.

Mr. JOELSON. Mr. Chairman, I intend to support the amendment offered by the gentleman from California, but I think that other States in the Union are going to have similar problems if they do not already have them.

California has been a pioneer, but I think that other States should be allowed to benefit by the pioneering work done in California. Therefore, my amendment very simply would allow other States which have identical plans as California to have the same treatment that California has, and if their regulations are identical with California's, they should be entitled to have the same type of waiver.

The air pollution problem is growing constantly more serious. As a resident of the eastern seaboard and a sufferer from sinus and hayfever I can personally attest that this is not a problem unique to California.

Mr. MOSS. Mr. Chairman, will the gentleman yield?

Mr. JOELSON. I yield to the gentleman from California.

Mr. MOSS. Mr. Chairman, as I understand the amendment of the gentleman from New Jersey to the amendment which I proposed, it would exempt any State adopting standards which were at least as high as those granted under the exemption as offered?

Mr. JOELSON. The gentleman is correct.

Mr. MOSS. That would, therefore, not lead to a proliferation of standards in the Nation, but at the most there would be two standards, a Federal or the higher standard developed by the State?

Mr. JOELSON. The gentleman is again correct.

Mr. MOSS. Those would be uniform in their application?

Mr. JOELSON. The gentleman is correct.

Mr. CRAMER. Mr. Chairman, will the gentleman yield?

Mr. JOELSON. I yield to the gentleman from Florida.

Mr. CRAMER. I ask as a point of information, I understand the amendment would say that the standards should be identical, meaning identical to California? Is that what the amendment says—identical?

Mr. JOELSON. Yes. That is what I have stated.

Mr. CRAMER. So that if there is any deviation whatsoever through the legislative process between the legislation passed in another State and that now in existence, or in existence as of March 30 in California, they could not qualify?

Mr. JOELSON. That is correct.

Mr. CRAMER. Does the gentleman mean "identical"?

Mr. JOELSON. Yes; I mean "identical." I know what "identical" means. I am trying to avoid a proliferation of standards throughout the United States, because I think that would be unworkable.

Mr. WYDLER. Mr. Chairman, will the gentleman yield?

Mr. JOELSON. I yield to the gentleman from New York.

Mr. WYDLER. Mr. Chairman, I thank the gentleman for yielding, and I rise to support his amendment, because I think it is eminently fair and reasonable.

I would like to ask the gentleman about something that seems to amuse me about this argument we are having before the House today. Why does not the Secretary, when he adopts national standards, adopt the standards California has set and which other States may wish to adopt, and then we would have one standard for the whole country? However, the assumption underlying this whole discussion here today is that the Secretary is going to adopt lower standards. I wonder why that assumption is made?

Mr. JOELSON. Mr. Chairman, I am not authorized to speak for the Secretary, but I would assume that these strict requirements are not necessary in the less populous areas, where there are less causes of pollution. I would assume that is the reason.

Mr. CEDERBERG. Mr. Chairman, will the gentleman yield?

Mr. JOELSON. I yield to the gentleman from Michigan.

Mr. CEDERBERG. Mr. Chairman, that is obviously the reason. There is no reason to expect everyone in the United States to go to tremendous expense to solve a problem that is unique in California.

Another problem that the gentleman's amendment would cause would be this: The gentleman says it is designed not to proliferate, but if anyone knows anything about the problem of mass production in the automobile industry, he would recognize that if the State of New Jersey, the State of the gentleman, would adopt the particular standard that is in existence in California, but New York and others did not adopt it, the assembly plants would have to gear up to handle one particular State in one area, and it would raise the cost to a great degree. Everybody recognizes California's problem, but we had better be careful what we are going to do if we try to proliferate this thing, because it would be unmanageable.

Mr. JOELSON. I am satisfied the know-how and efficiency and engineering ability of the automobile industry in this country could rise to solve this problem.

Mr. CEDERBERG. That is an impossibility.

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Mr. MOSS. Mr. Chairman, will the gentleman yield?

Mr. JOELSON. I yield to the gentleman from California.

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Mr. MOSS. Mr. Chairman, as I mentioned in my remarks, it is a fact that we can go to any dealership in this area and order virtually a limitless variation of automobiles as to color, as to power packs, as to accessories, and the whole production program is computerized, so the right car feeds in at the right time and comes out at the right end.

Mr. HARVEY. Mr. Chairman, I move to strike the requisite number of words.

Mr. Chairman, the basic problem we have before the House this afternoon in this amendment by the gentleman from New Jersey to the amendment offered by the gentleman from California and in the Moss amendment is the problem of preemption, that is preemption of States' activities in this particular field. Let me repeat what I said during general debate and what the gentleman from Michigan [Mr. DINGELL] also said earlier: This House decided that question in 1965. We decided it in no uncertain language, which is found on page 20 of this report before the House today, for the benefit of the House at this particular time. The reasons are well given for that particular language, but this House decided at that time that there had to be Federal preemption of State standards in this particular field if we were going to make sense in America in the administration of this air pollution law and in the mass production of automobiles.

Mr. Chairman, last year there were more than 100 million licensed drivers in America. They drove more than 78 million cars. They drove those cars more than 740 billion miles all across America in all of our 50 States.

Pending in the legislatures of our 50 States are more than 100 bills. The number is up to almost 125 bills right now to make more stringent auto emission standards.

I submit that what the committee decided in 1965 makes eminent good sense today. It is just not practical to revert to State standards in a field such as this. We must have Federal standards.

I want to go on and answer one other question which was brought up.

No one denies that the State of California has done a good job. No one denies that the State of California has asserted real leadership in this particular field. But the State of California can do everything, with one exception, as I see it, under the House version of this bill that it can do under the Senate version. That one exception is this: I do not believe the State could certify its own cars, if I understand this correctly, but it could have just as tough a requirement under the House version as it could have under the Senate version of the bill.

They still would have to come before the Secretary of Health and Education. They still would have to request a hearing. They still would have the burden of proof. They still would have to show compelling and extraordinary circumstances.

But in the one case the Secretary could be authorized to waive the Federal preemption, and in the other case he would prescribe standards. It is that simple.

Am I to believe that those on the Democrat side of the aisle have so little confidence in their Secretary of Health, Education, and Welfare, that he will not recognize compelling and extraordinary reasons requiring standards in California? I cannot believe this, and I am on the other side of the aisle. I cannot believe any Secretary of Health, Education, and

Welfare would take such a callous attitude, after the facts are clearly shown in a hearing provided for, and after the burden of proof has been met. I cannot believe that. Just the opposite would be true.

Mr. ROGERS of Florida. Mr. Chairman, will the gentleman yield?

Mr. HARVEY. I yield to the gentleman from Florida.

Mr. ROGERS of Florida. Is it not true that the Congress passed an emissions standard law, for interstate Federal standards, in 1965 and that the Federal standard is the same as the California standard is presently?

Mr. HARVEY. The gentleman is entirely correct.

Mr. ROGERS of Florida. Of course.

Mr. HARVEY. I want to correct the dialog that took place on the floor just a few minutes earlier, because the standard we are talking about in this bill is the California standard. What we say is that we recognize California may in the future have special problems. The auto industry recognized this as Mr. Mann testified, that California, because of some peculiar geography and topographical problems, does have some need and undoubtedly in the future will have some need. We are trying to provide a means to give them more stringent standards in the future. This is all we are trying to do.

Mr. HOSMER. Mr. Chairman, will the gentleman yield?

Mr. HARVEY. I yield to my friend from California.

Mr. HOSMER. At the present time there is a regulatory body in Washington, on automobile safety standards, and the automobile industry, the three big corporations, are constantly in a hassle with these people, constantly trying to slow down the application of standards.

Mr. HARVEY. I do not yield further to the gentleman. The gentleman is trying to put black hats on these people.

This whole thing has been a Hollywood production here. He is trying to put black hats on the auto industry, and to have the California delegation wear white hats.

Look at the record to see who has been asking for these things. Look at the record to see what progress has been made already by the auto industry as to reducing hydrocarbons and carbon monoxide. Hydrocarbons have been reduced 63 percent in the past 2 years. Carbon monoxide has been reduced 60 percent.

The CHAIRMAN. The time of the gentleman from Michigan has expired.

Mr. WAGGONNER. Mr. Chairman, I rise in opposition to the amendment and move to strike the requisite number of words.

Mr. Chairman, I believe we can all understand why there is at least accord as to the need for this legislation.

We are all, I believe, in a frame of mind to enjoy something amusing at this point. I have in my hand an item from the Sacramento Bee, a California newspaper which I believe is about the third largest in the State.

This is dated Monday, October 23, 1967. It is a reprint of a UPI wire item from Maplewood, N.J. The headline says "Air Pollution May Curb Sex Power." It goes on to say:

> An allergy expert says air pollution may pose a threat to human sex life.
>
> Dr. Frank Rosen said California tests show animals exposed to auto fumes have diminishing sex powers.
>
> "As far as I know," he said, "research has not been carried over to human beings—but the possibility of the adverse effect is certainly there."
>
> Rosen, long a critic of public apathy on air pollution dangers, said linking sex and smog "*might open some eyes.*"

So perhaps this might have a little something to do with the fact that the gentleman from California has offered

an amendment and the gentleman from New Jersey has offered an amendment thereto.

Very frankly and seriously now, Mr. Chairman, I find the position of our California colleagues hard to understand.

Here we have a bill which provides one measure of regulation for the 49 States other than California and another measure of regulation for California. I cannot think of a precedent for this kind of double standard in Federal regulatory legislation.

As I understand it, California wants to be exempted from the pollution control program entirely so that it could be free to go its way.

In an editorial in the Los Angeles Times last October 8, Eric Grant, executive officer of the California Motor Vehicle Pollution Control Board, is quoted as saying:

> Unless the special section is restored in the Senate version of 208(b)) it will be an outright violation of the concept of states' rights . . .

I think I can recognize a legitimate States rights argument when I see one. But I do not see one here. I do see preferential legislation proposed. Automobile travel is across State lines and any matter affecting two or more States is clearly under the jurisdiction of the Federal Government.

No State has a right to build a wall around itself. No State has a right to cut itself off from the other 49 in the administration of an important nationwide program. This amendment is a preferential proposal.

The States rights question was settled when Congress passed the 1965 amendments to the Clean Air Act. At that time we placed responsibility for protecting the Nation from the hazards of automotive pollution in the hands of the Department of Health, Education, and Welfare. We had good reasons for doing that.

Controlling automotive pollution is not like dealing with industrial and other stationary pollution—where State and local governments have a logical role. Factories do not move across State lines, but automobiles do. By its nature this form of pollution required a coordinated, nationwide effort. That is what we provided in the committee in this proposal.

Section 208(b) as reported by the Com-

[p. 30979]

merce Committee retains the concept of one unified national program—while still providing a mechanism for doing what needs to be done to meet California's special problem, as the gentleman from Michigan said just a moment ago—and they do, we all know, have a special problem and an urgent problem. Therefore, I urge the House to support the committee in this instance and I urge opposition to the amendment of the gentleman from California and the amendment thereto.

Mr. JOELSON. Mr. Chairman, will the gentleman yield?

Mr. WAGGONNER. I will be happy to yield to my friend.

Mr. JOELSON. Let me say that when I offered my amendment I did not have the benefit of the argument that the gentleman just offered. I thought air pollution was a threat to the respiratory system only, but having heard the hazards mentioned by the gentleman from Louisiana, I am all the more determined to press my amendment.

Mr. WAGGONNER. I would like to say, insofar as the gentleman from New Jersey and States rights are concerned, I am glad he is a late learner.

Mr. STAGGERS. Mr. Chairman, I wonder if we can fix the time for the conclusion of debate on the Moss amendment and all amendments thereto. I ask unanimous consent that it be completed at 10 minutes after 5.

The CHAIRMAN. Is there objection to the request of the gentleman from West Virginia?

Mr. KUPFERMAN. Mr. Chairman, I object.

Mr. STAGGERS. Mr. Chairman, I make the same request for 15 minutes after 5.

The CHAIRMAN. Is there objection to the request of the gentleman from West Virginia?

There was no objection.

The CHAIRMAN. The Chair recognizes the gentleman from Florida [Mr. CRAMER] for 1 minute.

Mr. CRAMER. Mr. Chairman, I rise in support of the MOSS amendment. This debate today has been very interesting and a little bit incongruous. I have heard people who support the State rights but apparently not recognize it in this obvious instance. I believe State rights are involved. Incongruous as to those who ordinarily are supporting a nonpreemption and who say there is no preemption in this bill. They suggest it should not apply, nonpreemption that is, but I believe it should. They say, incongruously, that you can have a situation in air pollution control where the States are not permitted to have higher than national standards unless the Secretary says so. We would not permit it in the air pollution control, but we just got through doing it and permitting higher standards in the water pollution control program, and we just got through doing it with regard to the safety legislation; we permit the States to have higher standards without the right of the Secretary to veto such higher standards.

I support the amendment offered by the gentleman from California, and I am being consistent.

The CHAIRMAN. The Chair recognizes the gentleman from California [Mr. DON H. CLAUSEN].

Mr. DON H. CLAUSEN. Mr. Chairman, I rise in support of the amendment offered by the gentleman from California [Mr. MOSS]. This amendment, which was included in the Senate version of this bill, will allow California to establish more stringent standards for the control of motor vehicle emissions than the standards promulgated by the Secretary of Health, Education, and Welfare for the rest of the Nation.

California has pioneered the control of automobile pollution. The nationwide standards which have just gone into effect for automobile exhaust control are the same standards which were established by my State more than 2 years ago. Now, if the pending amendment is not adopted, we are to be penalized for our leadership and, more importantly, it is extremely uncertain at best that California will be able to continue its efforts to reduce the pollution from automobiles.

It seems obvious to me that adoption of this amendment will be a great step forward in the fight against air pollution. California's original regulations on this subject forced the automobile industry to meet our requirements or lose access to their largest State market. These regulations were then adopted on a nationwide basis and now all States are benefiting from the action we took. I would certainly expect that the same process would be followed when California makes it standards even more stringent. The other States might again have a time lag between our implementation of higher standards and their own but I am certain they would follow our lead with the resultant reduction in physically harmful pollution.

I have long supported improved air and water pollution control programs. In the past several years, the Congress has made an outstanding record in this field, but we all recognize that much remains to be done. Recent

technological advances in the field have made it essential that we upgrade and strengthen our efforts. I know that the polluting industries, for the most part, have been making significant progress in controlling their pollution. It is my opinion that the role of the Congress should be to make clear to these industries that we will give them the opportunity to solve the problem on their own, which I feel they could do, but that we feel also that definite progress must be made and shown or more severe restrictions may have to be adopted if the problem is not solved.

I support this bill wholeheartedly and feel it is a great step forward in combating the menace of air pollution. With the amendment for the benefit of California, this legislation will provide an important tool to reduce the dangers to health which come from air pollution.

The CHAIRMAN. The Chair recognizes the gentleman from Colorado [Mr. ROGERS].

Mr. ROGERS of Colorado. Mr. Chairman, I rise to try to clarify and see if we can get an answer to the question of this preemption that has been brought up here from time to time, as it was when I asked the gentleman to yield to me.

If a Federal law were enacted—and ordinarily when the Federal Government steps into an area it preempts and takes over the field. Is that what we do in this legislation, Mr. Chairman?

Mr. STAGGERS. If the gentleman will yield?

Mr. ROGERS of Colorado. I yield to the gentleman that this is only on the emission of air pollution from new cars.

Then we do preempt the field?

Mr. STAGGERS. That is right.

Mr. ROGERS of Colorado. As it relates to new cars?

Mr. STAGGERS. That is right.

Mr. ROGERS of Colorado. So, by preempting the field, however, if the amendment proposed by the gentleman from California is adopted, would his amendment take preference over the Federal, the action that is taken by California take precedence over what we would enact here?

Mr. STAGGERS. Yes, it would; in the opinion of the chairman.

The CHAIRMAN. The Chair recognizes the gentleman from California [Mr. REINECKE].

Mr. REINECKE. Mr. Chairman, I would like to clear up several points that have been made here today.

First, that the California standards are equal to the Federal standards. This is true for the moment but California has already put the automobile manufacturers on notice that they are going further in 1969 and again in 1970 and again in 1975. We cannot get a commitment out of the Secretary in this regard.

Second, I wrote the Secretary asking him if California would in his opinion certify California for more stringent standards without further technical hearings.

I was not able to get a response. So I called him on Tuesday. I called him on Wednesday and I called him a second time on Wednesday. I was still unable to get any satisfactory results. Yet, we were told here today that one member of the committee in favor of the DINGELL amendment has in his possession a letter which tells the Congressman that the Secretary will allow California to go beyond that particular position.

If that is the kind of underhanded deal that California is going to get, then this is all the more reason that the MOSS amendment should be passed.

The CHAIRMAN. The Chair recognizes the gentleman from Indiana [Mr. JACOBS].

Mr. JACOBS. Mr. Chairman, at the

request of those Members who wish to vote, I yield back my time.

SUBSTITUTE AMENDMENT OFFERED BY MR. KUPFERMAN

The CHAIRMAN. The Chair recognizes the gentleman from New York [Mr. KUPFERMAN].

Mr. KUPFERMAN. Mr. Chairman, I offer a substitute amendment for the amendment offered by the gentleman from California [Mr. MOSS].

The Clerk read as follows:

Amendment offered by Mr. KUPFERMAN as a substitute for the amendment offered by Mr. MOSS: on page 97, strike out lines 3 through 20 and insert in lieu thereof the following:

"(b) The Secretary shall, after notice and opportunity for public hearing, waive application of this section to any State which adopts standards (other than crankcase emission standards) for the control of emis-

[p. 30980]

sions from new motor vehicles or new motor vehicle engines, unless he finds that such State does not require standards more stringent than applicable Federal standards to meet compelling and extraordinary conditions or that such State standards and accompanying enforcement procedures are not consistent with ection 202(a) of this title."

Mr. KUPFERMAN. Mr. Chairman, I rise to offer an amendment to S. 780, the Air Quality Act of 1967. My amendment would give States like my own, New York, a freer hand in establishing more stringent air pollution control standards for automobiles when the Federal requirements do not provide adequate safeguards for a State's special air pollution problem.

The act, in its present form, leaves little room for States to improve upon the Federal standards and allows these standards to preempt any regulations established by the States. My amendment would allow the Federal criteria to take precedence only when State standards are less stringent. It will give the States greater opportunity to expand air pollution controls to accommodate their special needs—particularly in urban areas where pollution has become an ever-increasing health hazard.

Urban areas obviously have different problems which cannot be accommodated by the same air-pollution standards for automobiles which might be appropriate for the wide-open spaces of Wyoming. Specific problems may require ad hoc and immediate solutions.

The tragic consequences of the 4-day thermal inversion in New York during Thanksgiving, 1966,[1] serves as a dramatic reminder for the need to tailor air pollution regulations to fit the special needs of a geographic area. No State should be encouraged to be inactive in protecting its citizens. Rather, States and localities should be permitted and encouraged to take preventive action that may be more forceful in its measures than those prescribed by the Federal standards. Although the development of automobile emission controls may be costly, human life and health is a far more valuable commodity.

My own 17th Congressional District in the heart of New York City is a critical example of air pollution aggravated by automobile exhaust fumes. My constituents, as well as all urban residents, can attest to the "garbage in air" in the vacuum which this amendment should fill.

Presently, the Federal Government places the burden upon the automobile industry pursuant to the Federal standards to develop the devices to limit the air pollution generated by automobiles. Inasmuch as the automobile industry builds the air-pollution device into the car at the site of manufacture, all cars sold in the country will have the same exhaust emission standards. Thus, we have the situation where a buyer of a car in Wyoming has the same automobile

exhaust control device which a buyer of a car in California has, but the air pollution problem facing these two individuals is clearly distinguishable.

To build an air-pollution device to fit either the average need of the Nation or that of the least common denominator is to deprive the large urban area of relief from its increasingly critical air pollution problem.

[1] See addendum material.

According to the Department of Health, Education, and Welfare, the Federal Government does not investigate the success of devices which private corporations or manufacturers produce. These private manufacturers are told to approach the automobile industry with their ideas. The automobile industry, having prepared their own devices, turns these people away. Consequently, we do not have any actual data on types of devices that could be placed on an automobile at the place of sale.

It may be that if this matter was investigated further, we would find devices that could be placed on the car at the point of sale which would adhere to the specific emission standard required by the particular State.

Presently, the Federal standards are identical to California's, which has the most stringent regulations of any State. However, California authorities admit that their present controls are clearly inadequate to meet their needs. Under the Air Quality Act in its present form, any future changes could only be made by the Secretary of Health, Education, and Welfare. My amendment provides new direction for the Nation's air pollution program by allowing States to establish their own economically feasible standards.

The Secretary of Health, Education, and Welfare would be forced to investigate the devices, which can be placed on the cars at the point of sale, inasmuch as the States could present these devices to prove the economic feasibility of their requirements.

I urge my colleagues to give this suggestion their careful consideration. Under my proposal, the States would have more power to tackle their air-pollution problems as they develop, as opposed to having the Federal Government place pressure on the automobile industry to make changes in their exhaust systems after the State's problem becomes so critical as to warrant changes in the standards applicable to the Nation.

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Mr. HECHLER of West Virginia. Mr. Chairman, I rise in opposition to the Kupferman substitute and in support of the JOELSON amendment, and also in support of the MOSS amendment. I feel it would be unfortunate if we had 50 different State standards as would be authorized by the adoption of the KUPFERMAN substitute. However, I do feel that there should be opportunity for States that wished to adopt more stringent standards, under the authority of the JOELSON amendment and the MOSS amendment, to do so. I therefore support the JOELSON amendment and also the MOSS amendment, and urge the Committee to adopt both of these amendments.

The CHAIRMAN. The Chair recognizes the gentleman from California [Mr. HOSMER].

Mr. HOSMER. Mr. Chairman, the issue is not whether we are going to have higher standards in California or not. That is to be the consequence of either the committee bill or the MOSS amendment. The issue is, Who will impose the higher California standards? Is California going to be able to impose the standards neces-

sary to meet its own circumstances and conditions, or will California have to go hat in hand to Washington along with the four automobile manufacturers—General Motors, Ford, Chrysler, and American Motors—and argue about it down at HEW? That is the only issue.

When standards do come, some Members have asked whether cars touring in California would have to buy the extra equipment, and so forth, that California car buyers have to pay for. The answer is "No." Touring automobiles are exempted. They amount to about 5 percent of the traffic. If we can get the 95 percent of our own automobiles cleaned up, we can lick the smog problem. We are asking you to let us do just that.

The CHAIRMAN. The Chair recognizes the gentleman from Florida [Mr. ROGERS].

(By unanimous consent, Mr. DINGELL yielded his time to Mr. ROGERS of Florida.)

Mr. ROGERS of Florida. Mr. Chairman, I hope the House will support the committee and vote against the amendments that have been offered, for a number of reasons.

First, it has only been since 1965 that the Federal Government has gotten into the program to set standards for car emissions all over the Nation. That is why we are having California's Members talk a great deal. They have been concerned. California has been in the problem longer.

But now the Federal Government is in it. The Federal standards are just as high as California's. I have been assured, and other Members as well, that in November, this month, you may expect to see proposed standards that will be stricter being published.

Let me point out this: In all of the amendments that have been offered, if you read them carefully, you will find that the decisions of standards to be set still goes back to the Secretary. It all rests on the Secretary because in both amendments the statement appears that "unless he," the Secretary—and I hope you will listen to this—"unless he," the Secretary "finds that such State does not require standards more stringent than applicable Federal standards to meet compelling and extraordinary conditions, or that such a State's standards and accompanying enforcement procedures are not consistent with section 202(a) of this title." In other words, the determination even in the MOSS amendment goes back to the Secretary of Health, Education, and Welfare. So this discussion becomes academic.

The committee has thought this out. And let me tell you, in the rating of cities with air pollution, Los Angeles is not the first. It is the fourth. Cities on the serious air pollution list come from all parts of the Nation. So it is a nationwide problem that the committee is trying to meet.

I hope you will vote down the amendment.

The CHAIRMAN. The Chair recognizes the gentleman from California [Mr. VAN DEERLIN].

Mr. VAN DEERLIN. Mr. Chairman, I yield to the gentleman from New York [Mr. ROSENTHAL] for a unanimous-consent request.

Mr. ROSENTHAL. Mr. Chairman, I rise in support of the amendment offered by the gentleman from California [Mr. MOSS].

Mr. Chairman, Americans have learned to be too passive about living with hostile environments we ourselves create. We have learned all too well to tolerate all kinds of atmospheric poisons, but we must decide now to turn from a complacent make-do approach in our air pollution control programs to a genuine commitment. All across this Nation, and particularly in our urban centers, air pollution continues to kill and to corrode.

The Air Quality Act of 1967 which I co-sponsor represents the kind of vigorous program that is desperately needed to combat the pollution of our air.

This bill contains within it most of the pollution control devices needed to institute an effective program. For this reason, I strongly endorse the bill's general regional approach to the air pollution problem, as well as most of its specific proposals. A provision of this bill which troubles me would weaken State and local pollution controls in those States, notably in New York and California, which seek more vigorous standards than those of the Federal Government.

Such exemplary local programs, under the current wording of the Air Quality Act's section 208(b), would meet serious delays in implementation. These delays would subvert an otherwise commendable clean air program. I must therefore qualify my support of the Air Quality Act as it now reads. To improve this bill I urge my colleagues to support the amendment introduced today by the gentleman from California. [Mr. MOSS]. This amendment would free States and localities to set clean air standards higher than those we are considering today and thus preserve and promote local initiative and competition for excellence.

Mr. Chairman, I ask permission to insert at this point in the RECORD a telegram which I just received from the Queens Tuberculosis and Health Association on the serious nature of the proposed limit on State action. It read:

Efforts by Congressman Dingell to amend S. 780 would seriously damage air pollution control efforts in the U.S. and especially in New York State where the problem of automotive pollution is most serious. It is clear that in order to reduce this pollution even more stringent regulations will have to be promulgated in the years ahead. We urge defeat of Congressman Dingell's amendment which would prevent the States from enacting regulations more stringent than those of the federal government. Passage would be a definite step backward in the fight for cleaner air.

I take no pride in the fact that I represent part of the most polluted city in the Nation. Within New York City's gray-brown borders, my own district must be ranked as one of the most polluted sections of that city. In northern Queens, we must contend not only with chemical wastes and combustion residue from home heating and automobile exhaust; we must also inhale the jet-age wastes of those thousands of airplanes that crowd our skies daily. My constituents live in conditions of constant peril, and this peril is compounded by the fact that much of our airborne filth derives not from New York, but from neighboring States. I am especially pleased to endorse the present bill's emphasis on regional and interstate pollution standards and controls. The air pollution that confronts us is a social obscenity for the United States, since most of our pollution problems are soluble. Much can be done for the intolerable condition of New York City air but neither New York nor any other city can succeed without the cooperation of neighboring areas.

The bill before us today deserves our fervent support, but we should not think that it alone will solve all of our air pollution problems. Our national ability to

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poison our environment may yet overcome our intention to cleanse that environment, and the measure before us should be seen as only part of a comprehensive national antipollution system that would reinforce and build upon specialized State and local programs.

Mr. VAN DEERLIN. Mr. Chairman, it should surprise no one that I, too, rise in support of the amendment offered by the gentleman from California [Mr. MOSS]. But I would rather

vote than talk. Therefore, I yield back the balance of my time.

The CHAIRMAN. The Chair recognizes the gentleman from California [Mr. CORMAN].

Mr. CORMAN. Mr. Chairman, I rise in support of the JOELSON amendment and MOSS amendment.

The CHAIRMAN. The Chair recognizes the gentleman from New York [Mr. MCCARTHY].

Mr. MCCARTHY. Mr. Chairman, we have heard a lot today about the concept of minimum nationwide standards, and about provisions of more stringent standards for special situations or for the automobile industry. When we dispose of the MOSS amendment and the amendment to it, I will have an amendment to restore the language of the original STAGGERS bill, that provides for the setting now of national emissions standards, for all other industries in addition to the automotive, such as jet aircraft, steel, paper, oil, and any industry that contributes substantially to air pollution.

The CHAIRMAN. The Chair recognizes the gentleman from West Virginia [Mr. STAGGERS].

Mr. STAGGERS. Mr. Chairman, I yield to the gentleman from South Carolina [Mr. WATSON].

Mr. WATSON. Mr. Chairman, I thank the distinguished chairman of the committee for yielding. I rise in support of the committee's position. As has been pointed out, we thoroughly considered these amendments in the Commerce Committee and overwhelmingly rejected them.

Frankly, I think Shakespeare wrote a book about what we have been doing here, entitled "Much Ado About Nothing." The committee's version will take care of the problem of California, and I think it is the orderly way of handling this pollution problem on a national basis.

Then, too, we should consider the effects passage of these amendments will have on the costs of automobiles, for the consumer will ultimately foot the bill for these added control features. Very well, the automotive industry will build its cars in accordance with the highest emission standards of California, and as a consequence the people in areas unaffected by the pollution problem must pay a higher price for their cars.

Let us move positively but in an orderly manner.

Mr. STAGGERS. Mr. Chairman, I thank the gentleman.

I might say I oppose the MOSS amendment and the amendment thereto and the substitute therefor, because the Committee on Interstate and Foreign Commerce—33 Members of this House—considered this legislation very carefully. We recommend to the House that we adopt the bill as it is now written.

When these propositions were considered, most of the members of the committee were present. The propositions were turned down. We tried to arrive at a fair bill for all the 50 States. I recommend the bill be passed in the form we reported it, and I am opposed to all the amendments.

The CHAIRMAN. All time has expired.

The question is on the amendment offered by the gentleman from New Jersey [Mr. JOELSON] to the amendment offered by the gentleman from California [Mr. MOSS].

The question was taken; and on a division (demanded by Mr. JOELSON) there were—ayes 66, noes 57.

Mr. STAGGERS. Mr. Chairman, I demand tellers.

Tellers were ordered, and the Chairman appointed as tellers, the gentleman from New Jersey [Mr. JOELSON] and the gentleman from West Virginia [Mr. STAGGERS].

The Committee again divided, and the tellers reported that there were —ayes 83, noes 87.

So the amendment to the amendment was rejected.

The CHAIRMAN. The question is on the substitute amendment offered by the gentleman from New York [Mr. KUPFERMAN] for the amendment offered by the gentleman from California [Mr. MOSS].

The substitute amendment was rejected.

The CHAIRMAN. The question is on the amendment offered by the gentleman from California [Mr. MOSS].

The question was taken; and the Chairman announced that the ayes appeared to have it.

Mr. DINGELL. Mr. Chairman, I demand tellers.

Tellers were ordered, and the Chairman appointed as tellers the gentleman from California [Mr. MOSS] and the gentleman from West Virginia [Mr. STAGGERS].

The Committee divided; and the tellers reported that there were — ayes 152, noes 58.

So the amendment was agreed to.

AMENDMENT OFFERED BY MR. OTTINGER

Mr. OTTINGER. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. OTTINGER: On page 60, line 10, strike out the period and insert in lieu thereof a semicolon.

On page 60, after line 10, insert the following:

"(6) conduct research and development programs to develop and demonstrate feasible electric-powered vehicles or other non-polluting alternatives to the internal combustion engine for motor vehicles."

Mr. OTTINGER. Mr Chairman, I am offering a simple but important amendment to the Air Quality Act of 1967 to spur the development of electric vehicles or any other feasible alternative to the internal combustion engine.

The internal combustion engine is clearly the major source of air pollution in the Nation today. Each year, according to the Department of Health, Education, and Welfare, cars, trucks and buses spew some 86 million tons of dangerous waste into the air we breathe and that is more than 60 percent of the total pollution from all sources.

Considering the nature of the threat that this represents, it is vital that we mobilize the best efforts of Government and industry immediately.

It is not enough just to extend the effort to reduce the emissions from gas-powered engines. Unless there is a major and unexpected breakthrough, no projected reduction through abatement and control devices will be enough. Just the anticipated increase in automobiles will more than cancel out the reductions in pollution achieved by inefficient control devices now in use.

We must start now on an accelerated effort to develop feasible alternatives—wholly different types of engines whether they be battery-powered motors, external combustion engines, a steam engine or some more exotic system.

The need for this is underscored by the report by a panel of experts last month by the Department of Commerce. In this report, entitled The Automobile and Air Pollution, the panel stressed that:

The magnitude of expected future need for urban-suburban personal transportation requires the early development of virtually non-polluting transportation systems.

The panel recommended a 5-year Federal program to "support, innovative developments" to achieve this goal. They stressed the need for federally supported research into new energy sources for vehicles, new vehicular propulsion systems, special purpose urban cars and general purpose vehicles.

Yet, in spite of this, there is no such provision in the Air Quality Act.

My amendment was the subject of detailed hearings in the Senate. It was considered by the House committee in connection with this act and opposed on the plea that the matter should be left to the auto indusry.

Arguing against this Federal effort, the auto industry would have us believe that such research and development can be left exclusively to private enterprise. On the one hand they say that they can be trusted to carry the program forward and on the other hand they say that their studies indicate that there is no reasonable alternative on the horizon now.

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[p. 30989]

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The question was taken; and there were—yeas 362, not voting 70, * * *.

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So the bill passed.

[p. 30999]

1.1h(4)(c) Nov. 9: Senate rejected House amendments, pp. 32072–73; 32079

AIR QUALITY ACT OF 1967

Mr. MUSKIE. Mr. President, I ask that the Chair lay before the Senate a message from the House on S. 780.

The PRESIDING OFFICER laid before the Senate the amendment of the House of Representatives to the bill (S. 780) to amend the Clean Air Act to au-

[p. 32072]

thorize planning grants to air pollution control agencies; expand research provisions relating to fuels and vehicles; provide for interstate air pollution control agencies or commissions; authorize the establishment of air quality standards, and for other purposes, * * *.

[p. 32073]

Mr. MUSKIE. Mr. President, I move that the Senate insist on its amendments and ask for a conference with the House, and that the Chair appoint the conferees on the part of the Senate.

The motion was agreed to; and the Presiding Officer appointed Mr. MUSKIE, Mr. RANDOLPH, Mr. BAYH, Mr. BOGGS, and Mr. COOPER conferees on the part of the Senate.

[p. 32079]

1.1h(4)(d) Nov. 13: House insisted on amendments and agreed to conference, p. 32213

CLEAN AIR ACT

Mr. STAGGERS. Mr. Speaker, I ask unanimous consent to take from the Speaker's table the bill (S. 780) to amend the Clean Air Act to authorize planning grants to air pollution control agencies, expand research provisions relating to fuels and vehicles, provide for interstate air pollution control agencies or commissions, authorize the establishment of air quality standards, and for other purposes, with an amendment of the House thereto, insist on the amend-

ment, and agree to the conference requested by the Senate.

The SPEAKER. Is there objection to the request of the gentleman from West Virginia? The Chair hears none, and appoints the following conferees: Messrs. STAGGERS, JARMAN, ROGERS of Florida, SPRINGER, and NELSEN.

[p. 32213]

1.1h(4)(e) Nov. 14: Senate and House adopted conference report, pp. 32475–32479

CLEAN AIR ACT — CONFERENCE REPORT

Mr. MUSKIE. Mr. President, I submit a report to the committee of conference on the disagreeing votes of the two Houses on the amendment of the House to the bill (S. 780) to amend the Clean Air Act to authorize planning grants to air pollution control agencies, expand research provisions relating to fuels and vehicles, provide for interstate air pollution control agencies or commissions, authorize the establishment of air quality standards, and for other purposes. I ask unanimous consent for the present consideration of the report.

The PRESIDING OFFICER. The report will be read for the information of the Senate.

The assistant legislative clerk read the report.

(For conference report, see House proceedings of this day, pp 32320-32328, CONGRESSIONAL RECORD.)

The PRESIDING OFFICER. Is there objection to the present consideration of the report?

There being no objection, the Senate proceeded to consider the report.

Mr. MUSKIE. Mr. President, this bill as agreed to unanimously by the conferees contains the essential authority of S. 780 as it was approved by the Senate, July 18, 1967. In some respects the legislation has been improved over the Senate-passed version. The only disappointment to the Senate conferees was in the total level of the authorization.

The House kept almost all of the new concepts in the Senate version of S. 780. Those areas of similarity included:

First. Expanded planning grants to States and local government to assist in implementation of air quality standards;

Second. Two-year full Federal financing for interstate planning bodies established by Governors to assist in development of air quality standards in interstate air quality control regions;

Third. Authority for the Secretary to define the Nation's air basins;

Fourth. Authority for the Secretary to define air quality control regions; problem areas where standards are required;

Fifth. Expanded definition of the Secretary's air quality criteria development responsibility;

Sixth. Authority for the Secretary to develop and distribute information on air pollution control technology;

Seventh. Provision for development and enforcement of air quality standards;

Eighth. Broadened participation in and improved procedures for enforcement conferences;

Ninth. Authority for the Secretary to act in the event of air pollution episodes which pose an imminent and substantial threat to health;

Tenth. Authority for States and local government to set standards for stationary sources more stringent than those approved by the Secretary;

Eleventh. Establishment of an Air Quality Advisory Board to the President;

Twelfth. Federal preemption of the right to set standards for new motor vehicles and new vehicle engines except in California where more stringent standards may be set;

Thirteenth. Federal assistance to the

[p. 32475]

States to develop vehicle emission inspection programs;

Fourteenth. A study of the efficacy of internal emission standards;

Fifteenth. Comprehensive study of the economic costs of air pollution and a study of the personnel needs for effective air pollution control programs;

Sixteenth. Annual reports to the Congress on various programs authorized by the act.

Mr. President, this is an impressive list of agreements. Within some of the above there were technical disagreements on particular legislation language but the Senate's intent was not changed by the House. Because the Senate's intent was maintained and because by and large the House amendments to the above-mentioned provisions improved the act the Senate receded from these differences.

Those differences include:

First. Clarification of the language under section 105 relating to Federal program and planning grants;

Second. Clarification of the language under section 106 relating to interstate planning agencies;

Third. Establishment of a 1-year deadline to define the Nation's air basins; and

Fourth. Clarification of the language relating to development on implementation of air quality standards.

Mr. President, now that I have cited the agreements between the two versions of S. 780 and those areas on which the other body helped to clarify the legislation, I should like to indicate the major differences between the two bills.

The House version did not contain the major provision of the Senate bill relating to research. As passed by the Senate the Air Quality Act of 1967 included a section authorizing $375 million to develop and demonstrate through grants and contracts methods to control pollution for combustion of fuels. This was the proposal advanced by the distinguished chairman of the Senate Committee on Public Works, Mr. RANDOLPH.

The basic act provides general authority for this type of research and demonstration and the House continued that authority without earmarked funds. The Senate did not consider that authority adequate to stimulate the needed research and development of improved techniques for the control and abatement of air pollution from fuels.

The conferees agreed to reinstate a modified version of the Senate provision. As reported from conference this research section provided for development and demonstration, by contract with industry, and grants to public or nonprofit agencies and to individuals, of new or improved techniques to control pollution from fuels combustion. At the insistence of the House the Senate receded on this section and agreed to delete grants to industry for these purposes.

The House also insisted, due to current budgetary restrictions, that the total funds authorized by the act not to exceed the $428.3 million figure suggested to them by the administration.

The Senate conferees did not accept the argument that current budgetary restrictions provide a sound basis for legislative authorizations. That is a function more properly left to the appropriations process. Never-

theless, in the interest of getting the program underway, the Senate conferees agreed to recede on the total authorization and accept the House figure of $428.3 million for fiscal years 1968, 1969, and 1970. The House conferees agreed to accept a Senate compromise of $35 million for fiscal year 1968, and $90 million for fiscal year 1969 for fuels combustion research and development. Operations authorizations are $74 million for fiscal year 1968, $95 million for fiscal year 1969, and $134.3 million for fiscal year 1970.

The second major disagreement related to provisions in both bills which required registration of fuel additives. The House conferees were concerned by the requirement in the Senate version that fuels be registered as well as additives. A compromise was reached whereby the fuel manufacturer is required to notify the Secretary as to the name, the range of concentration and the purpose in use of any additive contained in any fuel delivered in interstate commerce. The additive manufacturer is required to register the additive as to chemical composition, recommended range of concentration and recommended purpose in use. When the information is known, the additive manufacturer is also required to provide the Secretary with information on the chemical structure of the additive. The House also accepted the Senate language for protection of trade secrets with a minor amendment. Provisions for enforcement were identical in both bills.

Mr. President, several minor differences with the House bill were compromised without difficulty or sacrifice.

The House bill included a provision which expressed the intent of Congress that any State not a part of a designated air quality control region should not participate in an air pollution compact. As a part of this provision the House deleted that portion of the Senate bill picked up from the basic act which encouraged interstate compacts. The conferees agreed to accept both provisions.

The House bill moved a subsection relating to research advisory committees from the specific fuels research section 104 as provided in the Senate bill to the general research section 103. The Senate conferees accepted this change.

The House bill lowered from 12½ to 10 percent of total funds appropriated the share of Federal funds which could be allocated for air pollution control programs in any one State. The conferees agreed that with 50 State programs as envisioned by this bill, it would be unlikely that any single State could expect even 10 percent. Therefore, the Senate conferees receded.

The House bill included a provision requiring designation of air quality control regions within 18 months after enactment. This provision was modified to permit the Secretary to revise such regions or to add regions as he deems it necessary to protect the public health and welfare. It was not the intent of the conferees that the Secretary wait 18 months before making the first designations.

The House bill did not contain a Senate amendment providing for continuation of existing enforcement procedures during the standards development period. The conferees agreed that circumstances would arise wherein this basic authority should be used and the House conferees receded.

The House included provision calling for a study of the feasibility and practicality of controlling aircraft emissions. The Senate conferees accepted this provision.

The House bill included the so-called Davis-Bacon labor standards program which the Senate conferees accepted.

Mr. President, the conference agreement represents an excellent compromise. While the Senate did not prevail in its dollar figure, the basic approach unanimously approved earlier this year was maintained. The Air Quality Act of 1967 represents a significant expansion in Federal, State, and local air pollution control responsibilities. It focuses the attention of our national program where it should be: on the enhancement of our air quality.

The Federal role is expanded both as a supporter of State programs and, in the event the States fail to act, as an active participant in the development and implementation of air quality standards.

This new role will cost more money, more effort and more effective administration. No longer can air quality criteria be developed on an ad hoc basis. The people of the Nation have spoken. Congress has responded with the act, and now the effectiveness of our combined efforts will be judged by the creative abilities of the Secretary of Health, Education, and Welfare.

Mr. JAVITS. Mr. President, will the Senator yield for a question?

Mr. MUSKIE. I yield.

Mr. JAVITS. I understand that the Senate accepted a very sharp cut in the amount authorized for appropriation. This relates to air pollution, a matter of the most burning interest to many of us in the big cities. I should like, first, to continue, as so many of us have done before, our tribute to Senator MUSKIE for his outstandingly fine leadership in this matter.

As I understand, there was a considerable cut. I wish the Senator would tell us, for the record, how much of a cut was absorbed in the authorization and also—because this is of the utmost importance—what ameliorating changes in the provisions of the bill he feels help us to make up for the cut in money.

Mr. MUSKIE. The resolution of the money problem is somewhat complicated. I will try to explain it.

In the Senate version, we authorized a total of $700 million. Of this amount, $375 million was authorized over a 3-year period for research—the section 104 research program which was authored by the distinguished Senator from West Virginia [Mr. RANDOLPH], and which the Senate committee and the Senate as a whole considered very important. The remainder of the Senate authorization, or $325 million, was for all other purposes supported by the bill; and authorized

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under existing legislation for the current fiscal year.

The House figure of $428.3 million was not broken down between research and general operations so that the total House figure of $428.3 million included an unspecified amount for research, and the remainder was for operations.

In order to resolve the figure, we had to undertake some mathematical gymnastics to get the House to compromise. The House was not prepared to go along on anything above the $428.3 million because of the mood of the House—which the Senator from New York has described in connection with the problem he has discussed this afternoon.

We first considered a 2-year authorization with an authorization figure which would be closer to the Senate figure for those 2 years. The House was receptive to this suggestion, but felt that they were risking a point of order on the House side. So the Senate conferees then proposed to retain the 3-year authorization for general operations and concentrate earmarked research money

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in the first 2 years. We agreed to eliminate research money for the third year, on the theory that we could come back to Congress for that money, while retaining the operating funds—that is, the authorization for all other purposes—at a figure of $303 million. The $303 million for operations should be compared with the Senate figure of $325 million.

As a result we have, in the first 2 years, a total of $125 million for research, which compares with the Senate figure for research for those 2 years of $225 million and the House figure, implicit in their total authorization, of $75 million. We are a little closer to the House figure for research than to the Senate amount. However, we are very close to the Senate figure on operations.

By eliminating research funds for the third year of the 3-year period, we were able to resolve the fiscal differences in the two bills in a way that came some distance toward the Senate authorization. And, most importantly the House agreed to accept modified language of section 104. With this specific directive to the agency and the earmarked funds the research program can proceed at an accelerated pace even though that pace will be somewhat slower than we had hoped.

A couple of other important changes were made in the bill which came in the direction of the Senate version. For example, the key to the bill is the setting of air quality standards and this activity is triggered by the establishment of air quality control regions across the country by the Secretary. Under the House version, the Secretary would have had to designate all of these regions within a period of 18 months from the date of the enactment of the act after which his authority would run out. He would have no authority to modify the actions as experience indicated they should be.

The House conferees agreed to a modification of that language, which requires that the Secretary must designate the existing problem areas within 18 months; but he will have authority thereafter to add new areas as they emerge and, in addition, will have authority to modify those regions if necessary. We considered this modification important to preserve the intent of the Senate bill.

One other important provision dealt with the registration of fuel additives which, as the Senator knows, are extremely important in connection with air pollution. Lead, for example, is the most obvious one which threatens to create an air pollution problem. The House version would have required only the registration of the additives. The Senate committee felt that the registration would be meaningless unless information was supplied by both the additive and the fuel manufacturer. We felt the Secretary needed to know concentrations of the additives in the fuel, the chemical structure and composition of the additives, and the purposes for which they are added to the fuels. The House receded on this point.

All in all, I would say to the distinguished Senator from New York that the result of the conference represents a fair compromise between the House and the Senate versions, with give and take on both sides.

Mr. JAVITS. I thank the Senator.

Mr. MUSKIE. I thank the distinguished Senator from New York.

Mr. COOPER. Mr. President, the Clean Air Act of 1967, S. 780, which will go to the President to be signed into law following this final action in the Senate today, represents a great deal of work by the Senate Subcommittee on Air and Water Pollution, under the leadership of its chairman, Senator MUSKIE. I think it fair to

say that it is almost a creation of the Senate Committee on Public Works in which Senator EDMUND MUSKIE, of Maine, gave leadership. I believe it to be landmark legislation.

I know that Senator BOGGS, the ranking Republican member of the subcommittee, and all of us who worked together on this measure, have great hope for what can be accomplished under this act.

And I wish to pay special tribute to our chairman, Senator RANDOLPH, whose contribution has been so constructive, and who continues to guide the committee into fields of opportunity for helpful and useful legislation.

I consider S. 780 a strong bill—providing opportunity for the exercise of local initiative by the States and local communities in planning, establishment of air quality standards, and enforcement of pollution controls. It places upon the States and municipalities the responsibility for determining the quality of air they wish to maintain and achieve—and for the abatement of any pollution that degrades that standard. It places upon the Federal Government, through the Public Health Service and the Department of Health, Education, and Welfare, the definition of air quality control regions, the publication of air quality criteria, the dissemination of existing technology, and the development of promising new technology for the prevention of pollution and control of sources of pollution.

As one of the members of the Senate-House conference which worked out the final form of the bill to be enacted today, I would make one other comment. The amount of the authorization is less than that originally approved by the Senate—which was $700 million over a period of 3 years. We agreed instead to an amount equal to the authorizations in the bill as amended by the House—$428 million. But the very important section included by the Senate and omitted by the House—section 104—was restored by the conference.

It is this section 104 which provides specific authority to the Secretary of Health, Education, and Welfare, first, to conduct research in the combustion of fuels—including coal and automobile fuels; second, to provide grants to public and nonprofit private groups; and third, to contract with private industry in pilot plants studies and large-scale demonstrations of new controlling air pollution associated with fuel combustion. I am very glad that the bill reported by the conference maintains the Senate provision which, I think, expresses the intention of the Congress that greater emphasis must be given to this work. I think the Senator from West Virginia will agree with me that the committee expects that special effort and more effort, be devoted to developing these improved processes—without which, after all, attempts at regulation would not be able to accomplish the purposes of the bill.

The conference bill authorizes $35 million for section 104 in fiscal 1968, and $90 million in fiscal 1969. By that time, the committee will have the benefit of an appraisal by the Department of Health, Education, and Welfare of the need for continuing work, and will be in a better position to recommend an authorization for fiscal 1970 and succeeding years.

This bill—developed after thorough hearings, months of study and full consideration by the Senate and House committees—provides a practical and effective means of dealing with the serious problem of air pollution. I urge the Senate to adopt the conference report on S. 780.

Mr. MURPHY. Mr. President, the acceptance of the conference report on the Air Quality Act of 1967 completed the legislative journey of a measure

which I believe will become one of the most important steps ever taken by Congress in protecting the health of Americans everywhere.

The bill, which I was proud to cosponsor, represents the collective effort of a great many Senators and Members of the other body, as well. I am especially cognizant of the role played by the distinguished Senator from Maine [Mr. MUSKIE] in its passage. As chairman of the Subcommittee on Air and Water Pollution, the Senator from Maine deserves much credit for guiding this legislation in a spirit of full cooperation with the minority members of the subcommittee. I know that I reflect the view of the ranking minority member of the subcommittee, the distinguished Senator from Delaware [Mr. BOGGS], when I express my appreciation to Senator MUSKIE

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for his bipartisan approach to the Air Quality Act of 1967.

The intention of the legislation is abundantly clear: it is to move further along the path of providing clean, breatheable air to Americans in every State. While much remains to be done in this long neglected field, the Air Quality Act of 1967 represents the greatest single step taken by any Congress so far toward eliminating filthy air.

The people of California are very much aware of the importance of reducing polluted air. California was the pioneer State in controlling such sources of pollution as backyard incinerators, other open-air burning and, most important of all, exhaust emissions from motor vehicles. The regulations for controlling motor vehicle emissions in the Air Quality Act of 1967 were patterned after those currently in effect in California.

It was my concern for allowing California to continue its pioneering efforts in the field of air pollution that led to an amendment of this bill which the Senate and, later, the House accepted. I refer to section 208(b) of the legislation granting California a waiver from Federal preemption of the field in control of motor vehicle emissions. The Senator from Maine, the Senator from Tennessee [Mr. BAKER], and other members of the subcommittee were most understanding of California's special problems in this area, and I thank all of my colleagues for allowing this important amendment to remain in the bill.

Mr. President, I am firmly convinced that the United States as a whole will benefit by allowing California to continue setting its own more advanced standards for control of motor vehicle emissions. In a sense, our State will act as a testing agent for various types of controls and the country as a whole will be the beneficiary of this research. The smog situation in California is a serious one. Our State intends to continue its efforts to eliminate air pollution without letup and asks only that no roadblocks be put in its path.

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Mr. MUSKIE. Mr. President, I move the adoption of the conference report.

The report was agreed to.

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1.1i AUTHORIZATION FOR FUEL AND VEHICLE RESEARCH, 1969

December 5, 1969, P.L. 91–137, 83 Stat. 283

AN ACT To extend for one year the authorization for research relating to fuels and vehicles under the provisions of the Clean Air Act.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the first sentence of section 104(c) of the Clean Air Act (42 U.S.C. 1857b–1(c)) is amended by striking out "and", and by striking out the period at the end thereof and inserting in lieu thereof ", and for the fiscal year ending June 30, 1970, $45,000,000.".

Approved December 5, 1969.

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1.1i(1) SENATE COMMITTEE ON PUBLIC WORKS

S. REP. No. 91–286, 91st Cong., 1st Sess. (1969)

CLEAN AIR ACT AMENDMENTS OF 1969

JULY 2, 1969.—Ordered to be printed

Mr. RANDOLPH, from the Committee on Public Works, submitted the following

REPORT

[To accompany S. 2276]

The Committee on Public Works, to which was referred the bill (S. 2276) to amend the Clean Air Act, as amended, to extend for one year the authorization for research relating to fuels and vehicles, having considered the same, reports favorably thereon and recommends that the bill do pass.

I. GENERAL STATEMENT

With the passage of the Air Quality Act of 1967, this Nation entered a new phase in the national effort to control and abate air pollution. In that legislation the Congress set forth a blueprint

for a truly systematic effort to deal with the long-term threat of air pollution to public health and welfare.

The Department of Health, Education, and Welfare, the lead agency in this effort, has made substantial progress in implementing the provisions of the Air Quality Act. It was gratifying to note that Secretary Finch, as one of his first official tasks, issued air quality criteria, summarizing available medical and scientific knowledge on the effects on public health and welfare of two air contaminants—sulfur oxides and particulates. At the same time he also issued reports on the control techniques applicable to these atmospheric contaminants.

Thus, the stage has been set for the States to adopt regional air quality standards for sulfur oxides and particulate matter. In the next several months State governments will begin adopting standards for sulfur oxides and particulates and plans for their implementation in accordance with the provisions of the Air Quality Act of 1967.

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Initial attention has been devoted to the air quality control regions designated by the Secretary of Health, Education, and Welfare. He has already designated several of the Nation's largest metropolitan areas, and is expected to designate 32 such regions before the end of the year and an additional 25 by the summer of 1970.

The total population of these 57 regions is 97 million persons, or 70 percent of the Nation's urban population. All 50 States are represented, as well as the District of Columbia, Puerto Rico, and the Virgin Islands.

Once criteria and control data for a contaminant or group of contaminants are issued and an air quality control region is designated, the States represented have 90 days to signify their intent to set air quality standards for that contaminant and the designated area. They then have 180 days to hold public hearings and adopt standards, and another 180 days to adopt plans and schedules to implement and enforce these standards and requisite emission standards.

The success of this approach is contingent on the development of control technologies adequate to achieve established standards within a reasonable time. The report entitled "Control Techniques for Sulfur Oxide Air Pollutants" represents a vital, integral part in a program designed to assist the States. The report, however, reflects current control technologies which are insufficient to meet

long-term needs. Therefore, new and improved methods must be developed to insure the maintenance and, where necessary or desirable, the enhancement of existing air quality.

Section 104 of the Air Quality Act of 1967 is designed to meet this objective and provides for research and development activities into new and improved methods for the prevention and control of air pollution resulting from the combustion of fuels. Much of this research could be accomplished under section 103, but there are two special features in section 104.

First, funds made available under section 104 can remain available until expended. This flexibility is useful in the planning and scheduling of research and development and demonstration projects which may extend beyond the end of a fiscal year.

Second, section 104 defines a legal basis for supporting projects involving construction and installation of pollution control equipment on private property for the purpose of testing. This is very useful since industrial plants often are the best possible sites for making a realistic evaluation of the economic and technological feasibility of new processes for the control of problems such as sulfur oxides pollution.

For this purpose the Congress authorized $35 million for fiscal year 1968 and $90 million for fiscal year 1969. Unfortunately, programs and activities carried out under section 104 provisions have not been adequately funded, with approximately $9 million and $14 million having been expended for fiscal years 1968 and 1969, respectively. This is considerably less than the $225 million authorization, for the same period, which passed the Senate unanimously on July 18, 1967, and the $125 million authorization contained in the act.

Despite inadequacies in funding, the National Air Pollution Control Administration has moved forward in a concerted effort to improve air pollution control technology. Programs to develop the large-scale equipment studies necessary to firmly evaluate first-generation proc-

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esses for control of pollution from combustion have been given continued high priority, and programs to develop new processes have been expanded to give increased attention to pollutants other than sulfur oxides originating from combustion of fuels.

The committee is encouraged by the increased emphasis being devoted to systems studies to provide better definition of the research and development needed to cope with any major segment

of the air pollution problem presented by stationary sources.

These studies include:

(1) Industrywide surveys of basic industries such as primary smelters, pulp and paper, iron and steel, etc. In all these surveys, combustion processes will be given special attention.

(2) Device oriented studies to assess problems that must be solved to permit wider application of electrostatic precipitators, fabric filters, scrubbers, and afterburners.

(3) Pollutant oriented studies to provide better definition of the relative contributions of and control problems associated with important pollutants such as nitrogen oxides, particulates, and odors on a nationwide basis.

The study of sulfur oxide control methods, developed with the assistance of the Stanford Research Institute, entitled "Sulfur Oxides Pollution Control, Federal Research and Development Planning and Programming, 1968–72," was impressive. This report should prove an invaluable assistance in the development of control technologies for sulfur oxides.

All these systems studies involve certain common characteristics, whether they are pollutant oriented, device oriented, or industry oriented. In all, the intent is to accumulate the best possible data to provide a broad base of information that can be used by any groups interested in analysis of any segment of the problems. The availability of such information will eliminate the need for considerable duplication of effort.

These plans and similar plans and programs are needed for other problem areas. For example, national research and development plans should be developed to control nitrogen oxides emissions, to control particulate materials that are so small they elude current control efforts, and to reduce the emissions from moving sources such as automobiles, buses, trucks, ships, and airplanes.

The committee believes that increased emphasis is needed on motor vehicle research. Motor vehicles contribute to the general levels of noise in urban areas, as well as 60 percent of the atmospheric pollution. A balanced research and development program is needed on alternatives to the internal combustion engine; a program which stimulates industry to more rapidly develop low-pollution vehicles.

This bill, S. 2276, provides for continuation of all of these vital activities. The bill extends section 104 authorization through fiscal year 1970 at the currently authorized level of expenditure,

and is vital to the continuance of these joint Government-industry activities. Passage of this legislation is a necessity. Later this year the committee will look to extending authorizations for all sections of the Air Quality Act beyond fiscal year 1970. The authorization for other than section 104 through fiscal year 1970 is provided for in current statutes.

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II. NEED FOR LEGISLATION

The successful implementation of this national effort to control and abate air pollution depends on the development of adequate control technology. Adequate control technology is necessary not only to reduce the atmospheric emissions from existing sources, but also to counteract the increasing number of new sources.

There is already knowledge to reduce air pollution by a significant degree, but there are many control problems for which long-term solutions do not exist. In particular, the effective control of air pollution emissions from motor vehicles and sulfur oxides pollution from the combustion of fossil fuels will require intensive research and development over the next several years. Section 104 of the Air Quality Act of 1967 is designed to meet these needs.

This section directs the Secretary of Health, Education, and Welfare to—

(1) Conduct and accelerate research programs directed toward development of improved, low-cost techniques for control of combustion byproducts of fuels, for removal of potential pollutants from fuels, and for control of emissions from evaporation of fuels;

(2) Provide for Federal grants or contracts with public or private agencies, institutions, or persons for (A) part of the cost of acquiring, constructing, or otherwise securing, for research and development purposes, new or improved devices or methods having industrywide application of preventing or controlling discharges into the air of various types of pollutants; and (B) carrying out the other provisions of this section, without regard to sections 3648 and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5);

(3) Determine, by laboratory and pilot plant testing, the results of air pollution research and studies in order to develop new or improved processes and plant designs to

the point where they can be demonstrated on a large and practical scale;

(4) Construct, operate, and maintain, or participate in the construction, operation, and maintenance of new or improved demonstration plants or processes which have promise of accomplishing the purposes of this act;

(5) Study new or improved methods for the recovery and marketing of commercially valuable byproducts resulting from the removal of pollutants; and

(6) Estabish technical advisory committees composed of recognized experts in various aspects of air pollution and its control to assist in the examination and evaluation of research progress and of all research proposals and contracts and to insure the avoidance of duplication of research.

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For this purpose the Congress authorized $35 million for fiscal year 1968 and $90 million for fiscal year 1969, with the appropriated sums for section 104 to remain available until expended. In this way projects initiated for more than 1-year terms would be assured of continuing support. However, the authorization for the research and development activities under section 104 expire at the end of fiscal year 1969.

Among all the provisions of the Clean Air Act, section 104 most clearly reflects the Nation's pressing need for practical solutions to the very serious air pollution problems associated with fuel combustion and motor vehicles. This section also reflects the need for involvement of the private sector in the search for solutions to these complex problems. Section 104 provides authorities contained nowhere else in the Clean Air Act.

First, funds apropriated under section 104 remain available until expended. This flexibility is important in the planning and operation of large-scale research and development projects. Permitting funds to be carried over from one year to the next allows the National Air Pollution Control Administration to select the most promising projects and the best qualified contractors and grantees and to initiate projects at the times most advantageous to the Government.

Second, section 104 allows for the construction and testing of demonstration control equipment on private property. The consequence is to ease the legal problems associated with supporting large-scale development and demonstration projects involving construction on private property. The construction and

operation of demonstration plants at industrial sites is often the best means of making a realistic evaluation of the economic and technical feasibility of new processes, for example, sulfur oxides control methods. Two such projects are scheduled to get underway in fiscal 1970.

For these reasons it is important that the funding under section 104 be uninterrupted, as provided for in S. 2276.

REVIEW OF PROGRAM ACCOMPLISHMENTS

Despite inadequacies in funding, the administration has moved forward in implementing the provisions of section 104. A description of these activities has been provided by the Secretary of Health, Education, and Welfare to the Congress in two reports entitled "Progress in the Prevention and Control of Air Pollution," on June 28, 1968 (S. Doc. 90–92), and March 4, 1969 (S. Doc. 91–11).

The National Air Pollution Control Administration's research and development program for dealing with stationary sources consists of a three-pronged attack:

1. The development of systems and processes to control specific pollutants; for example, sulfur oxides, nitrogen oxides, and particulates.

2. Systems surveys to define the pollution problems of specific industries and to cooperatively develop control approaches for these industries; for example, primary smelters, pulp and paper manufacturers, and waste disposal plants.

3. The continuous development of new and improved control devices for use in the various control systems.

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In achieving these goals the NAPCA has moved forward in a number of areas. An outline of these areas is presented below. Details are given in the two progress reports cited earlier.

I. Control of Sulfur Oxide Pollution:
- A. Removal of sulfur from coal.
  - 1. Coal washing studies.
- B. Removal of sulfur from fuel oil.
- C. Removal of sulfur from flue gas:
  - 1. Limestone-injection process.
  - 2. Alkalized alumina process.
- D. New process development:
  - 1. Aqueous scrubbing.

2. Solid metal oxides.
3. Inorganic liquids.
4. Organic liquids.
5. Inorganic solids excluding metal oxides.
6. Organic solids.
7. Catalytic oxidation to sulfuric acid.
8. Reduction to sulfur.
9. Physical methods of separation.

II. Control of nitrogen oxides pollution.
III. Control of particulate pollution.
IV. Control of pollution from specific industries.
V. Control of pollution from solid waste disposal.
VI. Control device improvement studies.

Of these areas, two deserve particular attention: The first is fuel combustion research; the second is motor vehicle research and development.

FUEL COMBUSTION RESEARCH AND DEVELOPMENT

Efforts to develop and demonstrate techniques for the prevention and control of sulfur oxides pollution constitute a major part of the National Air Pollution Control Administration's research and development on air pollution problems arising from fuel combustion.

Over the past 2 years, NAPCA has completed the development of a comprehensive 5-year plan for sulfur oxides research and development and has moved ahead on implementation of the plan to the extent permitted by available funds. Thus, NAPCA is now managing a national program involving the participation of several other Federal agencies and more than 70 groups in the private sector and in universities. The program also includes cooperative activities with organizations in several foreign countries.

This program encompasses basic and applied research, laboratory testing, studies of economic and technical feasibility, and pilot-plant and prototype testing of sulfur oxides control techniques. NAPCA is placing increasing emphasis on full-scale prototype testing of techniques which have reached advanced stages of development. A substantial portion of the program is supported by NAPCA contracts with non-Federal organizations, but it is expected that projects involving cost sharing by industry will account for an increasing share of the program in the months

and years ahead, particularly in the area of prototype testing.
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The development and demonstration of techniques for removing sulfur oxides from combustion gases represent one of the principal work areas of the program. Availability of such techniques would help to pave the way for achieving effective control of sulfur oxides pollution without imposing widespread restrictions on fuel use. NAPCA has initiated work leading to full-scale prototype testing of limestone injection processes, which potentially are applicable to many existing steam-electric powerplants. Prototype testing of the dry limestone process is scheduled to begin in fiscal 1970 at a Tennessee Valley Authority plant. A site for testing of the limestone injection-and-wet scrubbing process has not been selected as yet. Agreements regarding the handling of proprietary information have been negotiated to pave the way for evaluation of flue-gas treatment processes developed by Wellman-Lord and the Monsanto Co.

Also with respect to flue-gas treatment, NAPCA has begun work on techniques that previously have not been applied to the control of air pollution but have potential for such application. Emphasis in this work is being placed on techniques that would permit recovery of sulfur byproducts. NAPCA already has initiated work on design of a small pilot plant for testing of one such process—the molten carbonate process; construction of the pilot plant is scheduled to begin in fiscal 1970. Early initiation of work on three other new processes is under consideration.

The application of techniques for removing sulfur from fuels before they are burned offers another satisfactory way of dealing with the sulfur oxides problem. In the past 2 years, in cooperation with the Bureau of Mines and other organizations, NAPCA has initiated studies of the extent to which sulfur can be removed from coals mined in various parts of the country, and in fiscal 1969, two studies were initiated to establish design parameters for prototype sulfur-removal plants.

The amount of coal lost when sulfur-containing pyrites are removed from coal constitutes an economic limitation on the extent to which sulfur can be removed. A process that would permit burning of the pyrite-coal mixtures to produce heat and sulfur byproducts is being investigated by NAPCA as an approach to maximizing the extent to which coal can be economically desulfurized.

Exploration of new combustion processes that might drastically

reduce the release of sulfur oxides is an important part of NAPCA's program. One of the most promising of such processes is fluidized bed combustion. The Bureau of Mines has been evaluating the basic technology of fluidized bed combustion. NAPCA's efforts are focused on evaluating its potential for sulfur-oxides reduction. NAPCA's work on this process includes cooperative activity with several foreign groups; just recently, an agreement was reached with the National Coal Board of Great Britain for exchanges of information on fluidized bed combustion.

New energy conversion techniques offer still another approach to dealing with the sulfur oxides problem. NAPCA is beginning to explore the extent to which such techniques, possibly coupled with fuel conversion-desulfurization processes, can make a contribution to future implementation of sulfur oxides control programs.

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Motor vehicle research and development

The National Air Pollution Control Administration has initiated development of a comprehensive 5-year plan for research and development on motor vehicle pollution control. This plan will define specific goals and outline alternative pathways toward those goals. It will encompass not only NAPCA's research and development activities but also the related work of other Federal agencies. In addition, it will define the relationship between Federal and industry research and development work on the motor vehicle pollution problem.

Over the past 2 years, NAPCA has initiated or intensified its research and development on many aspects of motor vehicle pollution control. Areas in which significant new or intensified activity is underway include advanced control systems applicable to carbon monoxide and hydrocarbon emissions from internal combustion engines; nitrogen oxides control systems; techniques for controlling emissions of particulate matter, particularly lead; alternative fuels for internal combustion engines; nature and control of diesel odors; and unconventional engines for use in passenger cars.

Examples of specific projects initiated under section 104 include:

1. A cooperative project with the National Aeronautics and Space Administration to develop a thermal afterburner for the control of carbon monoxide and hydrocarbon emissions. The project takes advantage of NASA's experience in the development

and use of materials capable of withstanding extremely high temperatures. Progress in this work has a direct bearing on the technical feasibility of compliance with increasingly stringent emission standards for motor vehicles.

2. Two projects to test the feasibility of first-generation, exhaust-gas recirculation devices for the control of nitrogen oxides emissions. A demonstration grant has been awarded to the State of California to support road testing of one type of device. Tests of another type are underway in NAPCA's own laboratories; this one was developed by Esso Research and Engineering under a contract with NAPCA. NAPCA also has initiated studies of the potential value of catalytic afterburners for control of nitrogen oxides emissions and of ways to minimize nitrogen oxides formation in designing engines.

3. Particulate matter emitted from motor vehicles includes lead, smoke, and polynuclear hydrocarbons. Fuel modification may be the most direct way to reduce or eliminate lead emissions, but NAPCA also is exploring the potential value of devices that would remove all types of particulate matter from automobile exhaust gases. NAPCA has established specifications for acceptable devices and, following review of various proposals, is negotiating a research and development contract in this area. This project will be the first step in a 3- to 4-year program of laboratory work, prototype hardware development, and on-the-road demonstrations.

4. NAPCA is participating in a 3-year, Government-industry research program to develop new knowledge of factors that have a bearing on the nature, effects, and control of motor vehicle pollution. This program is sponsored by the Coordinating Research Council; the other participants are the Automobile Manufacturers Association and the American Petroleum Institute. NAPCA provides funding for selected

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projects on the basis of their relationship to its own program. Projects for which NAPCA is contributing funds include studies of fuel volatility, gasoline additives, diesel odor composition, urban driving patterns, and maintenance of exhaust control systems.

5. NAPCA is contributing to the support of research by the Bureau of Mines on the relationship of fuel composition to total emissions from gasoline-fueled engines and the photochemical reactivity of such emissions. This work includes studies of fuel-emission relationships in both gasoline-fueled and diesel engines.

6. NAPCA's efforts relating to unconventional engines began more than 2 years ago with contract-supported studies to evaluate the potential of a variety of possible propulsion systems for motor vehicles. These studies identified the Rankine-cycle (steam) engine as one of the most promising. Accordingly, NAPCA currently is negotiating a contract for the development of a conceptual design of a Rankine-cycle engine intended specifically for use in passenger cars.

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III. HEARINGS

Though hearings on S. 2276 were not held by the Subcommittee on Air and Water Pollution, the subcommittee received the written testimony of Dr. John T. Middleton, Commissioner, National Air Pollution Control Administration, Consumer Protection Environmental Health Service, Public Health Service, Department of Health, Education, and Welfare. It is the subcommittee's intention to hold hearings later this year extending authorizations for the total act beyond fiscal year 1970. The authorization for other than section 104 is provided for in the Air Quality Act now. This bill extends the section 104 authorization through fiscal year 1970, at the currently authorized level of expenditure.

The statement of Dr. Middleton follows:

> Mr. Chairman and members of the subcommittee, I am very pleased to have this opportunity to testify on H.R. 12085. This bill would extend for 1 year the authorization of appropriations under section 104 of the Air Quality Act of 1967. I will say at the outset that enactment of this bill would not result in any increase in the National Air Pollution Control Administration's proposed budget for fiscal 1970, but rather would enable us to continue to make appropriate use of certain special features of section 104.
>
> In adopting the Air Quality Act, the Congress set up an intergovernmental system for dealing with air pollution problems on a regional basis. State and local governments have a major share of the responsibility for making this system work. They have a particular responsibility for dealing with air pollution problems arising from the many industrial, commercial, and other stationary sources located

in virtually every urban community in the Nation and in many small towns and rural areas.

The activities of State and local agencies depend in part on the availability of practical and economical techniques for preventing and controlling air pollution arising from stationary sources. And similarly, the national program of regulatory action to control air pollution from motor vehicles also depends on progress in the development of appropriate control techniques.

It is essential, then, that the Department of Health, Education, and Welfare continue the research and development activities authorized by the Air Quality Act, particularly those activities relating to the air pollution problems arising from the combustion of fossil fuels to produce electric power and heat and from the operation of motor vehicles. Together, fuel combustion sources and motor vehicles account for more than two-thirds of all discharges of pollutants into the Nation's air resource each year.

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Under section 104, the National Air Pollution Control Administration currently is conducting efforts to develop and demonstrate techniques for the prevention and control of sulfur oxides pollution, a major national problem arising in large part from the combustion of fossil fuels. This effort is a coordinated Government-industry program involving not just the National Air Pollution Control Administration but also several other Federal agencies and more than 40 organizations in the private sector.

A more modest program relating to motor vehicle pollution control also is being conducted under section 104. This program includes continued efforts to develop improved means of controlling emissions from the internal combustion engine and initial work on the development of alternative propulsion systems for motor vehicles.

Special features of section 104 include the fact that funds made available to us can remain available until expended. This flexibility is useful in the planning and scheduling of research and development and demonstration projects which may extend beyond the end of a fiscal year.

A second feature of section 104 is that which clarifies the legal implications of supporting projects involving construc-

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tion and installation of pollution control equipment on private property for the purpose of testing. Very often, industrial plants are the best possible sites for making a realistic evaluation of the economic and technological feasibility of new processes for the control of problems such as sulfur oxides pollution.

As I noted at the beginning of my statement, enactment of H.R. 12085 would not result in any increase in the National Air Pollution Control Administration's proposed budget for fiscal 1970. Funds for the types of research and development ordinarily conducted under section 104 can be appropriated under section 309 of the Air Quality Act; indeed, in view of the imminent expiration of section 104, such a shift of funding has been included in the revised 1970 budget. Section 309, however, does not contain the special features that are included in section 104.

As you know, Mr. Chairman, authorizations in section 104 are due to expire at the end of the current fiscal year. Section 309, on the other hand, runs through fiscal 1970. While extension of section 104 is not necessary, if the Congress determines that the proposed 1-year extension is desirable, we would not object to its enactment.

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IV. SECTION-BY-SECTION ANALYSIS

The bill S. 2276 provides a 1-year extension of the research authorization contained in section 104 of the Air Quality Act of 1967 (Public Law 90–148) at the current level of authorization: $90 million. The authorization for section 104 now expires at the end of fiscal year 1969. The authorization for the remaining section of the act expires with fiscal year 1970. With this amendment all authorizations for the act will expire with fiscal year 1970.

The provisions of this section are unchanged and described in Senate Report 90–103, as follows:

> This new section expands the provisions deleted from section 103, dealing with research directed toward the development of improved, low-cost techniques for extracting sulfur from fuels, and research relating to the control of emissions from gasoline and diesel-powered vehicles, and emissions of oxides of sulfur from sulfur-containing fuels.

This section requires the Secretary to give special emphasis to research into new methods for the control of air pollution resulting from fuel combustion. To this end he is required to conduct research programs which will include the control of combustion byproducts, removal of potential pollutants, and control of emissions from evaporation; provide for Federal payments to public and private groups; test results of air pollution control research to develop new or improved processes and designs which can be demonstrated on a practical scale; participate in, or be responsible for, the operation of demonstration plants for such new processes; study methods for the use of commercially valuable byproducts resulting from the removal of pollutants; and establish technical committees to examine and evaluate research progress and contracts and to insure the avoidance of research duplication.

In order to carry out the provisions of this section the Secretary is directed to conduct research and development of low-cost instrumentation techniques to determine the quantity and quality of air pollution emissions; make use of existing Federal laboratories; establish and operate facilities to carry out the research; acquire property and rights by various means, and cooperate and participate in the development of foreign and domestic projects.

Grants awarded under this provision are to be limited to $1,500,000 and 75 percent of the cost of the project. The bill authorizes $100 million for the fiscal year ending June 30, 1968; $125 million for the fiscal year ending June 30, 1969; and $150 million for the fiscal year ending June 30, 1970. The authorizations under this section are in addition to those to carry out the provisions of all other sections of the bill under section 309.

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V. CHANGES IN EXISTING LAW

In compliance with subsection (4) of rule XXIX of the Standing Rules of the Senate, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed

in italic, existing law in which no change is proposed is shown in roman):

AIR QUALITY ACT OF 1967

RESEARCH RELATING TO FUELS AND VEHICLES

SEC. 104. (a) The Secretary shall give special emphasis to research and development into new and improved methods, having industrywide application, for the prevention and control of air pollution resulting from the combustion of fuels. In furtherance of such research and development he shall—

(1) conduct and accelerate research programs directed toward development of improved, low-cost techniques for control of combustion byproducts of fuels, for removal of potential pollutants from fuels, and for control of emissions from evaporation of fuels;

(2) provide for Federal grants to public or nonprofit agencies, institutions, and organizations and to individuals, and contracts with public or private agencies, institutions, or persons, for payment of (A) part of the cost of acquiring, constructing, or otherwise securing for research and development purposes, new or improved devices or methods having industrywide application of preventing or controlling discharges into the air of various types of pollutants; and (B) carrying out the other provisions of this section, without regard to sections 3648 and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5): *Provided,* That research or demonstration contracts awarded pursuant to this subsection (including contracts for construction) may be made in accordance with, and subject to the limitations provided with respect to research contracts of the military departments in, section 2353 of title 10, United States Code, except that the determination, approval, and certification required thereby shall be made by the Secretary: *Provided further,* That no grant be made under this paragraph in excess of $1,500,000;

(3) determine, by laboratory and pilot plant testing, the results of air pollution research and studies in order to develop new or improved processes and plant designs to the point where they can be demonstrated on a large and practical scale;

(4) construct, operate, and maintain, or assist in meeting the cost of the construction, operation, and maintenance of

new or improved demonstration plants or processes which have promise of accomplishing the purposes of this Act;

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(5) study new or improved methods for the recovery and marketing of commercially valuable byproducts resulting from the removal of pollutants.

(b) In carrying out the provisions of this section, the Secretary may—

(1) conduct and accelerate research and development of low-cost instrumentation techniques to facilitate determination of quantity and quality of air pollutant emissions, including, but not limited to, automotive emissions;

(2) utilize, on a reimbursable basis, the facilities of existing Federal scientific laboratories;

(3) establish and operate necessary facilities and test sites at which to carry on the research, testing, development, and programing necessary to effectuate the purposes of this section;

(4) acquire secret processes, technical data, inventions, patent applications, patents, licenses, and an interest in lands, plants, and facilities, and other property or rights by purchase, license, lease, or donation; and

(5) cause on-site inspections to be made of promising domestic and foreign projects, and cooperate and participate in their development in instances in which the purposes of the Act will be served thereby.

(c) For the purposes of this section there are authorized to be appropriated for the fiscal year ending June 30, 1968, $35,000,000, and for [the fiscal year ending June 30, 1969, $90,000,000.] *each of the fiscal years ending June 30, 1969, and June 30, 1970.* Amounts appropriated pursuant to this subsection shall remain available until expended.

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1.1i(2) HOUSE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

H.R. REP. No. 91-349, 91st Cong., 1st Sess. (1969)

EXTENDING SECTION 104 OF THE CLEAN AIR ACT

JULY 7, 1969.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. STAGGERS, from the Committee on Interstate and Foreign Commerce, submitted the following

REPORT

[To accompany H.R. 12085]

The Committee on Interstate and Foreign Commerce, to whom was referred the bill (H.R. 12085) to amend the Clean Air Act to extend the program of research relating to fuel and vehicles, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

The amendment is as follows:

Strike out all after the enacting clause and insert in lieu thereof the following:

That the first sentence of section 104(c) of the Clean Air Act (42 U.S.C. 1857b-1(c) is amended by striking out "and", and by striking out the period at the end thereof and inserting in lieu thereof ", and for the fiscal year ending June 30, 1970, $18,700,000."

PRINCIPAL PURPOSE OF THE LEGISLATION

The purpose of H.R. 12085, as amended, is to extend for 1 year (the fiscal year ending June 30, 1970) the authority contained in section 104 of the Clean Air Act which relates to research and development in the prevention and control of air pollution resulting from the combustion of fuels.

Enactment of H.R. 12085 is not intended to result in any increase in the National Air Pollution Control Administration's proposed budget for fiscal 1970. Funds for the types of research and development ordinarily conducted under section 104 can be appropriated under section 309 of the Air Quality Act, and have

been requested in the budget, but because section 309 does not contain certain unique features contained in section 104, it would be far more desirable to have the funds appropriated separately under section 104. H.R. 12085 would make this possible. The reported bill will permit the funding

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of research programs under section 104 authority in the amount of $18.7 million, within the overall budget of $95.8 million presently pending before the Congress.

NEED FOR LEGISLATION

The Air Quality Act of 1967 was intended to pave the way for effective control of air pollution through coordinated efforts by all levels of government. State and local governments have the primary responsibility for planning and regulatory action to deal with the air pollution problems arising from the multitude of industrial, commercial, and other stationary sources located in all parts of the Nation. The Federal Government, specifically the Department of Health, Education, and Welfare, has the primary responsibility for regulatory action to deal with the national problem of motor vehicle pollution.

There can be no doubt that substantial progress in preventing and controlling these problems can be made through greater application of existing techniques. In the long run, however, a fully successful effort to restore clean air to the Nation's cities and towns will depend on the development and application of new and better techniques. Toward this end, both government and industry must pursue and intensify their research and development activities.

Among all the provisions of the Clean Air Act, it is section 104 that most clearly reflects the Nation's pressing need for new and improved means of dealing with the air pollution problems associated with fuel combustion and motor vehicles. This same provision also is the one which most clearly reflects the need for extensive involvement of the private sector in the search for solutions to these problems.

An important aspect of section 104 is that it provides some unique authority not explicitly provided by other provisions of the Air Quality Act. For one thing, funds made available under section 104 can remain available until expended. This flexibility is extremely useful in the planning and scheduling of large-scale research and development and demonstration projects. By per-

mitting the accumulation of funds necessary for such large-scale projects, this provision enables the National Air Pollution Control Administration to initiate projects at the most advantageous times and to select the best qualified contractors and grantees.

A second unique feature of section 104 is that it clarifies the legal implications of supporting projects involving construction and testing of pollution control equipment on private property. Very often, industrial or utility powerplants are the best possible sites for making a realistic evaluation of the economic and technological feasibility of new processes for the control of problems such as sulfur oxides pollution.

Finally, favorable action on H.R. 12085 would have the very salutary effect of reaffirming the Federal Government's commitment to providing leadership in the Nation's quest for the tools needed to overcome the growing threat of air pollution. The Federal Government cannot and should not be expected to take the total responsibility, but it clearly must continue to lead the attack. Enactment of H.R. 12085 will serve notice that the Federal commitment to clean air remains just as strong as ever.

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PROGRAMS UNDER SECTION 104

In general, section 104 of the Clean Air Act is designed to provide clearly earmarked funds for research into problems of pollution arising out of combustion of fuels and operation of motor vehicles. The principal focus of the research efforts conducted under this section to date have been with respect to control of sulfur oxides. The research and development programs which have been carried out, or are planned, for sulfur oxide control have included flue gas treatment, stack meteorology, fuel desulfurization, conversion of fuels (principally coal) to other forms such as liquids, gas, or modified solids, use of additives and other new combustion processes, with modest additional amounts for industrial processes control and surveys relating to the availability of lower sulfur fuels.

With respect to motor vehicle research and development, the total program for research, development, and demonstration of control systems in fiscal year 1969 totaled approximately $3 million, involving approximately $850,000 transferred to other Federal agencies; about $500,000 to universities and State governments to support research and demonstration grants; about $1.3 million for contracts with private industry and research institu-

tions; and an additional $750,000 through cost sharing with industry and other Government agencies. This program has covered the following seven concepts:

1. Advanced control systems for hydrocarbon and carbon monoxide from automobile engines;
2. Systems for control of oxides of nitrogen from automobiles;
3. Unconventional engines for passenger cars and buses;
4. Systems for control of particulates, especially lead, in exhaust;
5. Alternate fuels;
6. Understanding of diesel odor and evaluation of control feasibility; and
7. Development of control concepts for lesser vehicle sources such as aircraft, small engines, and off-highway vehicles.

The committee realizes that considerable effort is being conducted today by the automobile industry for reduction of emissions from motor vehicles; however, the committee does not agree with those automobile industry spokesmen who state that "industry has won the main air pollution battle." It is true that with existing emission controls on new motor vehicles, it seems that air pollution problems from motor vehicles should begin to decline in the near future and continue to decline for several years, but these same projections indicate as discussed during the hearings that emissions from motor vehicles will begin to increase again in absolute amounts by the late 1970's. The only standards for oxides of nitrogen, one of the principal offenders in photochemical smog, are those set under California law, but there is no guarantee that these standards will be met. This clearly indicates a need for more stringent controls in the future than are presently scheduled to go into effect in 1970, and the committee expects the Department to establish them.

Budgetary restraints in recent years have required that the National Air Pollution Control Administration set stringent priorities for its research and development effort, and the principal focus of that effort has been on the sulfur oxide problem. The committee feels that, al-

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though this effort has been worthwhile, the proportion of the total budget of the agency devoted to motor vehicle emissions has been less than the urgency of the problem would indicate. It was

pointed out during the hearings that the amount spent on research into motor vehicle exhausts has been a little over 3 percent of the budget, to deal with the source of 60 percent of the air pollution problem. In general, the standards that have been established in past years have been those which the automobile industry has indicated that it was able to meet, and since there is no economic incentive to the industry to develop an emission-free automobile it appears that research conducted by persons outside the industry should be encouraged to a much greater extent than has hitherto been the case, particularly with respect to propulsion systems other than the internal combustion engine.

The committee also feels that a greater effort should be made leading to the elimination of the thoroughly obnoxious diesel and bus exhausts which constitute a continuing insult to users of our streets and highways, and efforts should also be made to develop if possible relatively inexpensive devices or systems for control of emissions from used cars.

In addition, many states and localities have adopted varying testing methods for determining whether industrial and waste management processes meet local requirements. Although it is recognized that these standards are the responsibility of the individual States and local governments, and there is no requirement that these standards be uniform, it would be extremely helpful to the States and local governments, as well as industry, if the Department of Health, Education, and Welfare would prepare and submit for consideration by State and local governments interested in this problem recommended uniform testing procedures for various industrial and waste management processes, where feasible.

Concern was also expressed during the hearings over the extent to which Federal installations are carrying out control of air pollution from Federal facilities. Section 111 of the Clean Air Act gives the Department of Health, Education, and Welfare authority to set standards for Federal facilities, and the committee expects the Department to take necessary action to insure that Federal installations not only comply with regional, State, and local pollution control requirements, but also provide the maximum feasible control of air pollution from Federal facilities consistent with local requirements, giving due consideration to availability and cost of fuels and the feasibility of installing control devices.

AGENCY REPORT

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
July 2, 1969.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This letter is in response to your request of June 13, 1969, for a report on H.R. 12085, a bill to amend the Clean Air Act to extend the program of research relating to fuel and vehicles.

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The views of this Department were expressed in testimony by Dr. John T. Middleton, Commissioner, National Air Pollution Control Administration, CPEHS, before the Subcommittee on Public Health and Welfare of your committee on June 19, 1969.

For your information and convenience, a copy of Dr. Middleton's prepared statement is enclosed.

Sincerely,

ROBERT H. FINCH, *Secretary.*

Enclosure.

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3 of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

SECTION 104 OF THE CLEAN AIR ACT (42 U.S.C. 1857 B-1)

TITLE I—AIR POLLUTION PREVENTION AND CONTROL

* * * * * * *

RESEARCH RELATING TO FUELS AND VEHICLES

SEC. 104. (a) The Secretary shall give special emphasis to research and development into new and improved methods, having industrywide application, for the prevention and control of air

pollution resulting from the combustion of fuels. In furtherance of such research and development he shall—

(1) conduct and accelerate research programs directed toward development of improved, low-cost techniques for control of combustion byproducts of fuels, for removal of potential pollutants from fuels, and for control of emissions from evaporation of fuels;

(2) provide for Federal grants to public or nonprofit agencies, institutions, and organizations and to individuals, and contracts with public or private agencies, institutions, or persons, for payment of (A) part of the cost of acquiring, constructing, or otherwise securing for research and development purposes, new or improved devices or methods having industrywide application of preventing or controlling discharges into the air of various types of pollutants; and (B) carrying out the other provisions of this section, without regard to sections 3648 and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5): *Provided,* That research or demonstration contracts awarded pursuant to this subsection (including contracts for construction) may be made in accordance with, and subject to the limitations provided with respect to research contracts of the military departments in, section 2353 of title 10, United States Code, except that the determination, approval, and certification required thereby shall be made by the Secretary: *Provided further,* That no grant may be made under this paragraph in excess of $1,500,000;

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(3) determine, by laboratory and pilot plant testing, the results of air pollution research and studies in order to develop new or improved processes and plant designs to the point where they can be demonstrated on a large and practical scale;

(4) construct, operate, and maintain, or assist in meeting the cost of the construction, operation, and maintenance of new or improved demonstration plants or processes which have promise of accomplishing the purposes of this Act;

(5) study new or improved methods for the recovery and marketing of commercially valuable byproducts resulting from the removal of pollutants.

(b) In carrying out the provisions of this section, the Secretary may—

(1) conduct and accelerate research and development of low-cost instrumentation techniques to facilitate determination of quantity and quality of air pollutant emissions, including, but not limited to, automotive emissions;

(2) utilize, on a reimbursable basis, the facilities of existing Federal scientific laboratories;

(3) establish and operate necessary facilities and test sites at which to carry on the research, testing, development, and programing necessary to effectuate the purposes of this section;

(4) acquire secret processes, technical data, inventions, patent applications, patents, licenses, and an interest in lands, plants, and facilities, and other property or rights by purchase, license, lease, or donation; and

(5) cause on-site inspections to be made of promising domestic and foreign projects, and cooperate and participate in their development in instances in which the purposes of the Act will be served thereby.

(c) For the purposes of this section there are authorized to be appropriated for the fiscal year ending June 30, 1968, $35,000,000, [and] for the fiscal year ending June 30, 1969, $90,000,000, *and for the fiscal year ending June 30, 1970, $18,700,000.* Amounts appropriated pursuant to this subsection shall remain available until expended.

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1.1i(3) COMMITTEE OF CONFERENCE

H.R. REP. No. 91-690, 91st Cong., 1st Sess. (1969)

CLEAN AIR ACT

NOVEMBER 24, 1969.—Ordered to be printed

Mr. STAGGERS, from the committee of conference, submitted the following

CONFERENCE REPORT

[To accompany S. 2276]

The committee of conference on the disagreeing votes of the two Houses on the amendment of the House to the bill (S. 2276)

to extend for 1 year the authorization for research relating to fuels and vehicles under the provisions of the Clean Air Act, having met, after full and free conference, have agreed to recommend and do recommend to their respective Houses as follows:

That the Senate recede from its disagreement to the amendment of the House and agree to the same with an amendment as follows:

In lieu of the matter proposed to be inserted by the House amendment insert the following: *That the first sentence of section 104(c) of the Clean Air Act (42 U.S.C. 1857b–1(c)) is amended by striking out "and", and by striking out the period at the end thereof and inserting in lieu thereof, "and for the fiscal year ending June 30, 1970, $45,000,000.".*

And the Houses agree to the same.

HARLEY O. STAGGERS,
JOHN JARMAN,
PAUL G. ROGERS,
DAVID E. SATTERFIELD,
WILLIAM L. SPRINGER,
ANCHER NELSEN,
TIM LEE CARTER,
Managers on the Part of the House.

EDMUND S. MUSKIE,
JENNINGS RANDOLPH,
BIRCH BAYH,
JOSEPH M. MONTOYA,
J. CALEB BOGGS,
JOHN SHERMAN COOPER,
ROBERT DOLE,
Managers on the Part of the Senate.

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STATEMENT OF THE MANAGERS ON THE PART OF THE HOUSE

The managers on the part of the House at the conference on the disagreeing votes of the two Houses on the amendment of the House to the bill (S. 2276) to extend for 1 year the authorization for research relating to fuels and vehicles under the provisions of the Clean Air Act, submit the following statement in explanation of the effect of the action agreed upon by the conferees and recommended in the accompanying conference report:

The House amendment struck out all of the Senate bill after the enacting clause and inserted a substitute. The Senate recedes

from its disagreement to the amendment of the House, with an amendment which is a substitute for both the Senate bill and the House amendment.

As passed by the Senate, the bill would have authorized $90 million in appropriations for special research projects involving air pollution problems arising out of the combustion of fuels for the fiscal year 1970. The House amendment would have provided $18.7 million for this program and the conference substitute provides a total authorization of $45 million for this program.

Although the appropriation bill for the Department of Health, Education, and Welfare (H.R. 11102), which passed the House earlier this year contained no funds for this program, because of a lack of authorization therefor, the managers on the part of the House wish to emphasize that they expect funds to be earmarked for research projects in this highly important area.

The program contained in this act will be reviewed again in connection with the overall extension of the Clean Air Act later in this Congress.

HARLEY O. STAGGERS,
JOHN JARMAN,
PAUL G. ROGERS,
DAVID E. SATTERFIELD,
WILLIAM L. SPRINGER,
ANCHER NELSEN,
TIM LEE CARTER,
Managers on the Part of the House.

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1.1i(4) CONGRESSIONAL RECORD, VOL. 115 (1969)
1.1i(4)(a) July 8: Considered and passed Senate, pp. 18540–18541; 18544

CLEAN AIR ACT AMENDMENTS OF 1969

The Senate proceeded to consider the bill (S. 2276) to extend for 1 year the authorization for research relating to fuels and vehicles under the provisions of the Clean Air Act.

Mr. RANDOLPH. Mr. President, S. 2276, the pending measure, amends the Clean Air Act, as amended, and would extend for 1 year the authorization for research relating to fuels and vehicles at the current level of $90,000,000.

Mr. President, with the passage of the Air Quality Act of 1967, this Nation entered a new phase in the national effort to control and abate air pollution. In that legislation the Congress set forth a blueprint for a truly systematic effort to deal with the long-term threat of air pollution to public health and welfare.

The Department of Health, Education, and Welfare, the lead agency in this effort, has made substantial progress in implementing the provisions of the Air Quality Act. It was gratifying to note that Secretary Finch, as one of his first official tasks, issued air quality criteria, summarizing available medical and scientific knowledge on the effects on public health and welfare of two air contaminants—sulfur oxides and particulates. At the same time he also issued reports on the control techniques applicable to these atmospheric contaminants.

Thus, the stage has been set for the States to adopt regional air quality standards for sulfur oxides and particulate matter. In the next several months

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State governments will begin adopting standards and plans for implementing sulfur oxides and particulate standards, in accordance with the provisions of the Air Quality Act of 1967.

Initial attention will be devoted to the air quality control regions designated by the Secretary of Health, Education, and Welfare. He has already designated several of the Nation's largest metropolitan areas, and is expected to designate 32 such regions before the end of the year and an additional 25 by the summer of 1970.

The total population of these 57 regions is 97 million persons, or 70 percent of the Nation's urban population. All 50 States are represented, as well as the District of Columbia, Puerto Rico, and the Virgin Islands.

Once criteria and control data for a contaminant or group of contaminants are issued and an air quality control region is designated, the States represented have 90 days to signify their intent to set air quality standards for that contaminant and the designated area. They then have 180 days to hold public hearings and adopt standards, and another 180 days to adopt plans and schedules to implement and enforce these standards.

The objective of the Air Quality Act of 1967 clearly is to promote and encourage public participation in the development of public policies and air quality standards geared to the regional nature of air pollution problems. Whether or not the Air Quality Act is successful depends upon the degree of commitment and cooperation the Federal Government receives from State and local government, from industry, and from the taxpayer and citizen. As the knowledgeable junior

Senator from Maine (Mr. MUSKIE), chairman of the Subcommittee on Air and Water Pollution, so eloquently stated at the New England Conference on Air Pollution:

> If the public welfare becomes in the future as it has so often been in the past, the concern on a daily basis of only those who are elected to public office or who hold appointive office in government, then we can indeed be concerned about the future of participatory politics in the American system.

Once public policies are established which reflect desired air qualities in terms of health, comfort, convenience, cleanliness, and beauty, they must be implemented. To do so requires control methods adequate to meet long-term needs. Current control technologies are insufficient to meet these long-term needs. Therefore, new and improved methods must be developed to insure the maintenance, and, where necessary or desirable, the enhancement of existing air quality.

Section 104 of the Air Pollution Act of 1967 is designed to meet this insufficiency by providing for research and development activities into new and improved methods for the prevention and control of air pollution resulting from the combustion of fuels.

Significant advancements have been made in the implementation of these research and development activities. System studies have been conducted to define needed research and development to cope with stationary sources. These activities should now be expanded into motor vehicle research and development to reduce emissions which account for over 60 percent of the current air pollution. Such activities should be designed to encourage industry to reduce the emissions from internal combustion engines, as well as to develop alternative methods of propulsion.

While program advances are encouraging, the committee is concerned about the inadequacies in funding. For the purpose of carrying out the provisions of section 104, the Congress authorized $35 million for fiscal year 1968 and $90 million for fiscal year 1969. Unfortunately, programs and activities carried out under section 104 provisions have not been adequately funded, with approximately $9 million and $14 million have been expended for fiscal years 1968 and 1969, respectively.

The effect has been to delay severely the development of much needed control technologies. A typical example is the area of sulfur oxides control. The study of sulfur oxide control methods, developed with the assistance of the Stanford Research Institute, entitled "Sulfur Oxides Pollution Control, Federal Research and Development Planning and Programing, 1968-72," indicates that if the development of sulfur oxide control methods is to be phased to meet the abatement and control needs of the country in 5 years then Federal appropriations for this purpose should have been $41 million and $56 million for fiscal years 1969 and 1970. Yet the appropriation for all purposes was $23 million or $74 million short of meeting the need regarding sulfur oxides alone.

This failure, however, is not due solely to Government lethargy. The testimony of industry, in particular the electric utilities, coal and oil industries, on the Air Quality Act of 1967 indicated a desire to participate in joint Government-industry efforts in control technology development. To this end the Congress enacted section 104 of the Air Quality Act of 1967, the authorization of which would be extended by S. 2276 through fiscal year 1970.

This section contains two special features not contained in section 103, the general research provisions. First, funds made available under section 104 would remain available until expended. This flexibility is useful in

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the planning and scheduling of research and development and demonstration projects which may extend beyond the end of a fiscal year. Second, section 104 authorizes supporting projects which involve construction and installation of pollution control equipment on private property for the purpose of testing.

Section 104 is useful to both Government and industry, yet, it has been inadequately funded to meet the need defined by the Congress.

If private industry is truly interested in participating in this program, we have a right to expect more effective support for and interest in the provisions of section 104 of the Air Quality Act of 1969. The pending bill, S. 2276, provides for continuation of all of these vital activities for 1 year. The measure extends section 104 authorization through fiscal year 1970 at the currently authorized level of expenditure, $90 million, and is vital to the continuance of these joint Government-industry activities.

Later this year the committee will consider extending authorizations for all sections of the Air Quality Act beyond fiscal year 1970. The authorization for other than section 104 through fiscal year 1970 is provided for in current statutes.

At this time, as chairman of the Committee on Public Works, and on behalf of the committee's members, I recommend enactment of S. 2276.

Mr. COOPER. Mr. President, I am glad to join with Senator RANDOLPH, chairman of the Committee on Public Works, on which I serve as ranking minority member, in urging adoption by the Senate of S. 2276, to extend certain research provisions of the Clean Air Act.

Great and urgent environmental problems face this and other nations. The problems are real and we must look now to the development of adequate remedies. The bill before the Senate today represents a small portion of a legislative program designed to reverse the trend of deteriorating air quality. It is a simple extension for 1 fiscal year of research authority to continue this authorization through fiscal year 1970, when all the authorizations of the Air Quality Act are subject to review and reauthorization.

Although this bill is a simple extension of existing authority, it does illustrate a difficulty in developing control methods and techniques at a time when air pollution continues to increase. I refer to the gap between authorization and appropriation for the pollution control efforts.

Section 104 of the Clean Air Act, proposed to be extended by S. 2276, authorized for fiscal 1968 and 1969 appropriations, not to exceed $125 million. However, in those 2 years only $23 million has been appropriated for research into fuels combustion under section 104—less than one-fifth of the authorized amount. I urge the Senate to consider this fact as they pass upon this bill and, more importantly, when the several appropriation bills relating to environmental quality reach the Senate floor.

Mr. MANSFIELD. Mr. President, I ask unanimous consent to have printed in the RECORD an excerpt from the report (No. 286), explaining the purposes of the bill.

There being no objection, the excerpt was ordered to be printed in the RECORD * * *.

[p. 18541]

* * * * *

The bill was ordered to be engrossed for a third reading, read the third time, and passed, as follows:

S. 2276

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 104(c) of the Clean Air Act is amended by striking out "the fiscal year ending June 30, 1969" and inserting in lieu thereof "each of the fiscal years ending June 30, 1969, and June 30, 1970".

[p. 18544]

1.1i(4)(b) Sept. 3, 4: Considered and passed House, amended, pp. 24005–24006; 24356–24372; 24374–24378

PROVIDING FOR CONSIDERATION OF H.R. 12085, TO AMEND THE CLEAN AIR ACT TO EXTEND THE PROGRAM OF RESEARCH RELATING TO FUEL AND VEHICLES

Mr. SISK. Mr. Speaker, by direction of the Committee on Rules, and on behalf of the gentleman from New York (Mr. DELANEY), I call up House Resolution 518 and ask for its immediate consideration.

The Clerk read the resolution, as follows:

H. RES. 518

Resolved, That upon the adoption of this resolution it shall be in order to move that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the bill (H.R. 12085) to amend the Clean Air Act to extend the program of research relating to fuel and vehicles. After general debate, which shall be confined to the bill and shall continue not to exceed one hour, to be equally divided and controlled by the chairman and ranking minority member of the Committee on Interstate and Foreign Commerce, the bill shall be read for amendment under the five-minute rule. At the conclusion of the consideration of the bill for amendment, the Committee shall rise and report the bill to the House with such amendments as may have been adopted, and any Member may demand a separate vote in the House on any amendment adopted in the Committee of the Whole to the bill or amendment in the nature of a substitute recommended by the Committee on Interstate and Foreign Commerce now printed in the bill. The previous question shall be considered as ordered on the bill and amendments thereto to final passage without intervening motion except one motion to recommit with or without instructions. After the passage of H.R. 12085, it shall be in order in the House to take from the Speaker's table the bill S. 2276 and to move to strike out all after the enacting clause of said Senate bill and insert in lieu thereof the provisions contained in H.R. 12075 as passed by the House.

The SPEAKER pro tempore. The gentleman from California (Mr. SISK) is recognized for 1 hour.

Mr. SISK. Mr. Speaker, I yield 30 minutes to the gentleman from California (Mr. SMITH) pending which I yield myself such time as I may consume.

Mr. Speaker, House Resolution 518 provides an open rule with 1 hour of general debate for consideration of H.R. 12085 to extend section 104 of the Clean Air Act. After passage of H.R. 12085, it shall be in order to take S. 2276 from the Speaker's table and move to strike all after the enacting clause of the Senate bill and amend it with the House-passed language.

The purpose of H.R. 12085 is to amend the Clean Air Act to extend for 1 year the authority in the act which relates to research and development in the prevention and control of air pollution resulting from the combustion of fuels.

The bill as reported will permit the funding of research programs under section 104 authority in the amount of $18.7 million. Funds made available under section 104 can remain available until expended. This flexibility is extremely use-

[p. 24005]

ful in the planning and scheduling of large-scale research and development and demonstration projects.

This program has covered the following concepts:

First, advanced control systems for hydrocarbon and carbon monoxide from automobile engines;

Second, systems for control of oxides of nitrogen from automobiles;

Third, unconventional engines for passenger cars and buses;

Fourth, systems for control of particulates, especially lead, in exhaust;

Fifth, alternate fuels;

Sixth, understanding of diesel odor

and evaluation of control feasibility; and

Seventh, development of control concepts for lesser vehicle sources such as aircraft, small engines, and off-highway vehicles.

In the long run, a fully successful effort to restore clean air to the Nation's cities and towns will depend on the development and application of new and better techniques. Toward this end, both government and industry must pursue and intensify their research and development activities.

Mr. Speaker, I urge the adoption of House Resolution 518 in order that H.R. 12085 may be considered.

Mr. SMITH of California. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, House Resolution 518 is for a 1-hour open rule, no waiver of points of order, for the consideration of H.R. 12085, which extends section 104 of the Clean Air Act.

Mr. Speaker, the purpose of the bill is to extend for 1 year, through fiscal 1970, the authority contained in section 104 of the Clean Air Act. This authority relates to research, demonstration projects, and development in the field of prevention and control of air pollution resulting from combustion of fuel, primarily as used in motor vehicle engines.

The bill does not increase the amount budgeted by the administration for the program and, strictly speaking, an extension of section 104 is not absolutely necessary for the continuation of work in the general field. Under section 309 of the Air Quality Act, budgeted funds could be appropriated for these general purposes. However, the committee believes it desirable to extend section 104 of the Clean Air Act to reemphasize the commitment of the Government to the decrease of air pollutants emitted by motor vehicles. Additionally, the committee points out that funds made available under section 104 remain available until expended. This is extremely useful in long-term planning and development work.

The bill authorizes $18,700,000 for use on section 104 projects, which is part of the overall budgetary amount of $95,800,000 presently pending before Congress.

The committee notes the considerable efforts being made by the automobile industry to reduce air pollution by motor vehicles. However, since there is no economic incentive within the industry to develop pollution-free automobiles, the committee believes research should be conducted outside the industry, both with respect to control of air pollutants and with respect to vehicle propulsion systems other than internal combustion engines.

There are no minority views. The Department of Health, Education, and Welfare has submitted a letter which supports its earlier testimony in favor of the bill.

Mr. Speaker, I urge adoption of the rule.

TRACTOR SAFETY AMENDMENT

Mr. SISK. Mr. Speaker, I yield 5 minutes to the gentleman from New York (Mr. STRATTON).

Mr. STRATTON. Mr. Speaker, I take this time simply to advise the Members of the House that in connection with the bill, H.R. 10105, the amendments to the National Traffic and Motor Vehicle Safety Act of 1966, I propose to offer an amendment to amend the basic act, to provide for the setting of certain standards to cover safety with regard to tractors.

I noticed in the press this morning that Mr. Ralph Nadar had released a report with regard to fatalities in tractors. Unfortunately, he did not mention in his report that I had introduced legislation dealing with this matter last January. I have been researching it carefully for some time,

and as a matter of fact one of his assistants, I think popularly known as one of Nader's raiders, stopped by my office some weeks ago to get a look at our files and our legislation and the recommendations that he has made in his report are very similar to those contained in my basic legislation.

Primarily, what we would do would be to require tractors to have roll bars and also seat belts. More than 1,000 lives are lost each year from tractor accidents. Just in the 2½ weeks that I was back in upstate New York in my district during the recess, there were eight tractor fatalities in that area.

Mr. Speaker, this is an urgent problem. I do not think it needs to be studied any longer. We have had detailed studies by the American Society of Agricultural Engineers as well as other qualified research groups and I think it is time now for us to act. Therefore, I intend at the proper time, Mr. Speaker, to offer this tractor safety amendment to the bill, H.R. 10105.

Mr. SISK. Mr. Speaker, I move the previous question on the resolution.

The previous question was ordered.

The resolution was agreed to.

A motion to reconsider was laid on the table.

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EXTENDING SECTION 104 OF THE CLEAN AIR ACT

Mr. STAGGERS. Mr. Speaker, I move that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the bill (H.R. 12085) to amend the Clean Air Act to extend the program of research relating to fuel and vehicles.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from West Virginia.

The motion was agreed to.

IN THE COMMITTEE OF THE WHOLE

Accordingly the House resolved itself into the Committee of the Whole House on the State of the Union for the consideration of the bill H.R. 12085, with Mr. GALLAGHER in the chair.

The Clerk read the title of the bill.

By unanimous consent, the first reading of the bill was dispensed with.

The CHAIRMAN. Under the rule the gentleman from West Virginia (Mr. STAGGERS) will be recognized for 30 minutes and the gentleman from Illinois (Mr. SPRINGER) will be recognized for 30 minutes.

The Chair recognizes the gentleman from West Virginia.

Mr. STAGGERS. Mr. Chairman, this bill was reported unanimously by the committee and we recommend its passage by the House. The bill would extend for 1 year, with limitations, the authority for appropriations contained in section 104 of the Clean Air Act. The other body has already passed a bill on this subject. We believe this bill should be passed before the appropriation bill for the Department of Health, Education, and Welfare is finally passed by the Congress so that the programs authorized under this bill can be contained in that appropriation act.

Section 104 of the Clean Air Act, which expired June 30, 1969, authorized appropriations specifically earmarked for research into air pollution problems involving fuels and motor vehicles.

As amended by the committee, the bill extends this authority for 1 year, so that the authorization will expire at the same time as the authorization for all other programs under that act —June 30, 1970. The bill authorizes $18.7 million in appropriations for section 104 programs for fiscal 1970.

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This is the same amount the agency had for this purpose in 1969.

We do not expect that passage of the bills will involve any increase in appropriations since there is already authority under other provisions of law for appropriations in excess of those contained in the HEW appropriations bill as passed by the House. Passage of this bill will permit earmarking of funds in the regular HEW appropriation bill for this program, which will not be possible unless this bill is passed.

There is no question but that this bill increases the authorization for total appropriation for fiscal year 1970. The current total appropriation authorization is $134,300,000. This bill will add an additional $18.7 million to that authorization, for a total of $153 million; however, we do not anticipate any increase in the appropriation requests as heretofore submitted by the administration nor do we expect a supplemental appropriation for any of these sums to be requested. As I mentioned earlier, we anticipate that some of the funds contained in the regular appropriation bill will be specifically earmarked for the section 104 programs authorized by this bill, authorizing appropriations for programs under section 104 of the Clean Air Act.

Mr. Chairman, the principal reason for this bill is twofold—first, section 104 represents a clear commitment on the part of the Federal Government to conduct research in joint Government-industry programs into air pollution problems involving the combustion of fuels and the operation of motor vehicles. Second, section 104 contains two authorities with respect to research which are not contained in other provisions of the Clean Air Act: First, authority for funds to remain available until expended which aids orderly planning for research programs; and, second, clear authority for Federal payment of construction costs of industrial-type facilities on private property, which can then be disposed of to the owner of the property. This authority is quite similar to authority of the Department of Defense in this research area.

Mr. Chairman, as I mentioned, hearings were held on this bill, and all witnesses were in favor of the bill. I know of no opposition to the legislation, and the committee was unanimous in recommending its passage to the House.

Mr. SPRINGER. Mr. Chairman, the 90th Congress passed the most comprehensive air pollution control act thus far. We called it the Air Quality Act, and it was a sweeping amendment to the Clean Air Act. Included therein was a provision for extensive research on fuels and motor vehicles.

It was the feeling at that time that the ultimate answer to our largest contributor to air pollution—the automobile—lay in extensive research. Since that time the committee has discovered that priority has been given to research on sulfur oxides in order to complete and issue the criteria necessary for suppression of most of the industrial pollution. The committee in the hearings and in the report expresses its opinion that more should be done to find the answers to automotive pollution since it probably accounts for 60 percent of the entire problem.

It is the expressed contention of the Department of Health, Education, and Welfare to expend $18.7 million for this purpose during fiscal year 1970. Since the authorization for this particular activity extended only through 1969, it is now necessary that it be extended if the authorities therein are to be used. The other programs included in the Air Quality Act will run out at the end of fiscal year 1970, and for that reason a 1-year extension only is included in this

bill. In this way all of the programs will expire at the same time, and it will give the committee and the Congress an opportunity to again evaluate the research effort which is being made. We are hopeful that a more encouraging report can be made when this legislation again comes before us.

I recommend this bill to my colleagues in the House.

Mr. STAGGERS. Mr. Chairman, I yield such time as he may consume to the gentleman from Oklahoma (Mr. JARMAN), the chairman of the subcommittee.

Mr. JARMAN. Mr Chairman, it is my pleasure to speak in favor of passage of H.R. 12085, the purpose of which is to extend for 1 year—fiscal 1970—the authority contained in section 104 of the Clean Air Act, as amended. This section authorizes research and development by the Department of Health, Education, and Welfare on the prevention and control of air pollution resulting from the combustion of fuels and the operation of motor vehicles.

In adopting the Air Quality Act of 1967, the Congress set up an intergovernmental system for dealing with the problems of air pollution on a regional basis. State and local governments were given a major share of responsibility in making this system work, by dealing with air pollution arising from industrial, commercial, and other stationary sources located in virtually every urban community in this Nation, as well as in many small towns and rural areas.

The activities of State and local agencies in preventing and controlling these stationary sources of air pollution depend in large part on the availability of practical and economic techniques. Similarly, the national program of regulatory action to control motor vehicle pollution depends on progress in developing appropriate control techniques.

It is essential that the Department of Health, Education, and Welfare continue the reserach and development activities authorized by the Air Quality Act, especially those activities under section 104 relating to air pollution problems caused by the combustion of fossil fuels to produce electric heat and power and from the operation of motor vehicles. These sources account for more than two-thirds of the Nation's yearly air pollution.

Section 104 also reflects the need for extensive involvement of the private sector in the search for solutions to these problems. For example, the effort to develop and demonstrate techniques for sulfur oxides pollution control under section 104 is a coordinated Government-industry program which involves the National Air Pollution Control Administration, several other Federal agencies, and more than 40 organizations in the private sector. Also, under section 104, the National Air Pollution Control Administration is conducting research and development on motor vehicle pollution control. This effort includes continued attempts to develop improved emissions control from the internal combustion engine as well as initial work on the development of alternative propulsion systems for motor vehicles.

Section 104 provides two unique authorities not explicitly provided in the rest of the Air Quality Act. The first such feature is that funds made available under this section can remain available until expended. This flexibility is very useful in planning and scheduling large-scale research and development projects.

The second unique feature of section 104 is that it clarifies the legal implications of supporting projects which involve construction and testing of air pollution control equipment on private property. In many instances, industrial or utility power plants are

the best possible sites for making realistic evaluations of economic and technological feasibility of new processes in air pollution control.

Favorable action on H.R. 12085 would reaffirm the Federal Government's commitment to providing leadership in the Nation's efforts to develop ways to overcome the growing threat of air pollution.

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The Federal Government cannot and should not be expected to take all the responsibility, but it must continue to lead the attack. Enactment of H.R. 12085 will show that the Federal commitment to clean air remains as strong as ever.

Mr. STAGGERS. Mr. Chairman, I yield 2 minutes to the gentleman from Ohio [Mr. VANIK].

Mr. VANIK. Mr. Chairman, I am in full agreement with this legislation. However, I would like to direct the attention of the Committee to what I believe is a necessary approach to the critical air pollution problem confronting urban areas in which heavy, basic industries are located. In these communities, air pollution imposes incredible damage on human life and property.

Mr. Chairman, I have always felt that the industrial air pollution problem is something that could be best solved on an industry-by-industry basis rather than by leaving the entire complex burden of regulation on local communities. A steel mill or petrochemical industry operates in almost the same manner wherever it is located. The pollution problems are the same in the same industrial operation. The methods of control or nuisance abatement are the same. Industry-wide standards of abatement or control could be uniformly adopted on Federal recommendations for a specific industry. Polluting industries would not be able to compete on inferior, low-cost abatement procedures tolerated by some communities indifferent to the problem. Such competition is unfair and detrimental to the public interest.

I feel that insofar as industrial pollution is concerned the time has come for this Congress to set on a course of an industry-by-industry approach so that industries and communities are not competing with each other on the basis of what they fail to do with respect to controlling the air pollution problem.

So, Mr. Chairman, I would hope that the present program will be amplified and extended so that we may approach this problem on an industry-by-industry basis and so that we can clean up the air, especially in our urban areas where so much industrial air pollution occurs to the detriment of the public health.

Mr. SPRINGER. Mr. Chairman, I yield 5 minutes to the gentleman from California (Mr. BELL).

Mr. BELL of California. Mr. Chairman, residents of California's 28th District, which I represent, know well the problems created by unclean air, and they understand the immediate urgency for finding new methods to curb the growing threat of air pollution.

I believe that leadership in providing such research must come from the Federal Government.

The Los Angeles air quality control region includes seven counties.

Pollutant missions from Los Angeles County alone, however, account for over 60 percent of the total regional emissions.

The largest single source of air pollution in Los Angeles is from transportation.

In fact, more than 80 percent of pollution in Los Angeles results from the use of motor vehicles.

Nationally, motor vehicle exhausts

account for 60 percent of the air pollution problem.

Yet, as the committee has pointed out in its report, little over 3 percent of the national air pollution control administration's budget has been spent on research in this area.

I believe the agency must clearly reevaluate its budgetary priorities.

And I am confident that my constituents would share the committee's observation that the small proportion of the agency's budget devoted to motor vehicle emissions has been less than the urgency of the problem would indicate.

We have the highest population density in the Los Angeles air quality control region.

Approximately one-half of the freeway system and one-half of the total surface transportation facilities of the region will soon be located in Los Angeles County.

These factors clearly indicate that well over half of the total pollution from mobile sources occurs in the Los Angeles Basin.

In recent years there has been some progress in reducing pollution from motor vehicles.

But the industry has not yet developed an emission-free vehicle.

We must not neglect the possibility that some alternate propulsion system to the present internal combustion engine may be necessary to keep the pollution problem under control.

Existing techniques for the control of pollution from automobiles are clearly inadequate for Los Angeles.

I believe that clean air will be restored to our urban centers only through the development of new techniques.

Extension of section 104 affirms our desire to secure better methods of control, and I urge my colleagues to join me in support for H.R. 12085.

Mr. FARBSTEIN. Mr. Chairman, would the gentleman yield?

Mr. BELL of California. I yield to the gentleman from New York.

Mr. FARBSTEIN. Mr. Chairman, I thank the gentleman for yielding, and I hope that the gentleman will be here when the bill is read for amendment, because I propose offering an amendment to prohibit the manufacturing of internal combustion engines after 1978 unless they comply with the California law which says that the State will bar automobiles unless they have standards of emission that equal that adopted by the State for the purchase of automobiles and I hope that the gentleman will be here.

Mr. BELL of California. I will certainly be here, and will be happy to listen to the gentleman's statement.

Mr. STAGGERS. Mr. Chairman, I yield 5 minutes to the gentleman from Florida (Mr. ROGERS).

Mr. ROGERS of Florida. Mr. Chairman, I thank the gentleman for yielding, and I rise in support of this legislation to amend the Clean Air Act to extend the program of research relating to fuels and vehicles for 1 year.

This legislation would enable the National Air Pollution Control Administration to continue for another fiscal year, the fiscal year ending June 30, 1970, its research and development activity in the prevention and control of air pollution resulting from the combustion of fuels.

Section 104 differs from the other provisions of the Clean Air Act in that funds made available under this section can remain available until expended, thereby providing flexibility which is extremely useful in the planning and scheduling of large scale research and development and demonstration projects. Too, this section clarifies the legal implication of supporting projects involving construction and testing of pollution control equipment on private property such as the use of industrial or utility powerplants.

Enactment of H.R. 12085 will not result in any increase in the National Air Pollution Control Administration's proposed budget for the present fiscal year. Funds have already been requested in the budget under section 309 of the Air Quality Act, but separate appropriation under section 104 is desirable for the aforementioned reasons and H.R. 12085 would make this possible.

We are far from victory in our efforts to clean up the air around us, but we must not relent and this legislation will permit us to continue in our quest for cleaner air for all.

I believe it is essential for us to pass the legislation, because we want to have the kind of research work done that is required.

Mr. Chairman, along the line of the use of funds, I believe it may be interesting to the Members to know that the committee did go into specifics on that, and expressed great concern, which I share, as to the allocation of the research funds in relation to the problem of air pollution. For instance, it is estimated that 60 percent of the air pollution problems of the country come from automobile emissions—60 percent—and yet do you know the amount of the research funds which are being allocated to solve the 60 percent? About 3.4 percent of the $88,733,000 appropriated to the agency for air pollution.

We have taken this up in the committee hearings with the agency and expressed the concern of the committee on the disproportionate allotment of the research funds in relation to the actual problem which exists.

I am sure that the committee will follow this up so that the Department of Health, Education, and Welfare will begin to allocate its funds more in proportion with the problem that actually exists. If not, I believe we are going to have to take some steps to change it ourselves. But I do think this will come about, and I would certainly hope so, because our major problem is this vehicle emission. We hope they are getting into effective research now in trying to bring about an emission-free propulsion system for vehicles.

Mr. BELL of California. Mr. Chairman, would the gentleman yield?

Mr. ROGERS of Florida. I yield to the gentleman from California.

Mr. BELL of California. Mr. Chairman, I thank the gentleman for yielding. I want to add one thought to the gentleman's concept, and that is that there is a great deal of urgency in the Los Angeles

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County area, very, very strong urgency. So I would urge that the committee move with all haste in this direction.

Mr. ROGERS of Florida. I would concur with the statement of the gentleman from California. I think the committee has made it clear that we expect action from the Department on this, and as rapidly as possible.

Mr. BELL of California. The gentleman may or may not know that the State legislature in California almost passed legislation that would accomplish that which the gentleman from New York [Mr. FARBSTEIN] suggested during his presentation.

Mr. ROGERS of Florida. I understand that, and I presume that the California Legislature in its judgment did not take that action because they thought it was better to try to meet the problem through research, and to encourage achieving a solution to the problem rather than to see everybody start walking.

I am not sure that the public would want to make that choice.

Mr. BELL of California. Does the gentleman believe that the automobile industry is doing all it can to

develop new forms of emission prevention and abatement?

Mr. ROGERS of Florida. I will not say that I know personally they are doing everything they can, but from the information the committee has, I do think emphasis is being placed on this problem by the automobile companies and by the Government as well. I think this will accelerate the finding of some new type of such engines.

Mr. BELL of California. I certainly hope the gentleman is correct because it is going to be a real problem.

Mr. ROGERS of Florida. I think we have to have action and I agree with the gentleman.

Let me say also that we expressed concern in the committee on the problems of exhaust—of diesel exhaust from buses and large trucks. Now we have been told that we can expect the 1970 models of these diesel vehicles to have emission control devices on them. The committee intends to follow that up because I think this is a very severe problem that has not been dealt with—many people have been talking about automobiles or motors for private passenger travel rather than talking of buses and big trucks which I think is just as much a problem and contributes to the overall problem.

So we are trying to emphasize these things.

Mr. BELL of California. I thank the gentleman.

Mr. HALL. Mr. Chairman, will the gentleman yield?

Mr. ROGERS of Florida. I am glad to yield to the gentleman.

Mr. HALL. Mr. Chairman, I appreciate the gentleman's yielding.

I wonder if the gentleman's subcommittee in its wisdom has prompted the administrative agencies and those expending the research and development funds, towards the problem of noxious gases in closed spaces emitted by inconsiderate fellow human beings?

Have you done anything with reference to human emission by some in closed spaces? To me this is a more serious problem than others, to have a human venting cigarette and cigar and pipe smoke in a confined or closed space, where those who may be allergic or supersensitive to smoke so far as his eyelids or mucous membranes are concerned.

I dare say, as a man who has been skilled in the past in lung surgery or black lung disease and white lung disease and problems of silicosis and pneumoconiosis and anthracosis—and all of these other examples of air vented contamination in closed places by unthinking people, many of whom all light up at the same time their wish-fulfillment of expectant death, immediately when the smoking light goes on in an airplane, whereas they are perhaps unthinking—but their nonparticipating fellow passengers cannot escape—not even by going into the often scrubbed and many times air-cleansed bathrooms aboard such conveyances—and this applies even in private cars, buses, and other closed spaces.

I wonder if the committee has done anything to see if we can increase the scrub rate or decrease that kind of contamination emitted by human ventration in closed spaces—and if not, I strongly recommend it.

Mr. ROGERS of Florida. I appreciate the gentleman's remarks and concur in saying that something needs to be done.

The CHAIRMAN. The time of the gentleman has expired.

Mr. HALPERN. Mr. Chairman, I wish to voice my strong support of H.R. 12085, the bill we are considering today.

This bill specifically deals with section 104 of the Air Quality Act of 1967, a section directing the Secretary of Health, Education, and Welfare to

conduct research and development programs to improve methods and techniques currently in use for the abatement and control of air pollution generated by the combustion of fossil fuels. It directs the Secretary to conduct a similar program relating to automotive emission control.

A special feature of this bill is that allocated funds can remain available until used, without being tied to the specific fiscal year in which they were appropriated. This means that research and development programs can be executed properly without undue haste or errors, that they can be initiated at the most advantageous time. Therefore, the National Air Pollution Control Administration, the responsible HEW agency, can select the best possible contractors or grantees for a given undertaking.

Under the Air Quality Act of 1967, funds authorized for fiscal year 1968 totalled $35 million, and for 1969, $90 million, with the funds authorized for section 104 projects to remain available until expended. However, these appropriations will expire at the end of fiscal year 1969 unless an amendment to the act is passed to preserve them.

Following the enactment of the Air Quality Act in November of 1967, the National Air Pollution Control Administration developed techniques to prevent and control sulfur oxides pollution, a major pollutant resulting largely from the combustion of fossil fuels.

In the area of automotive air pollution control, the agency conducts a program to improve control devices for abating emissions from the internal combustion engine, and has embarked on a program of developing alternative propulsion systems for automobiles.

To continue these programs and initiate new ones, the agency must be assured of continuing use of its funds beyond the arbitrary deadine of the 1969 fiscal year. An extension of the section 104 provisions of the Air Quality Act of 1967 thus is mandatory at this time. I therefore sincerely urge all my colleagues to endorse H.R. 12085 now to provide for this essential continuity.

Mr. BOLAND. Mr. Chairman, I want to express my support for this legislation—H.R. 12085—seeking to amend the Air Quality Act of 1967 and to extend the program of research on fuels and vehicles. Progress is being made in this field. Momentum for abatement actions is building up. New technology is becoming available. Therefore, we cannot afford any lapse in technical effort simply because of a quirk in the existing law. The bill which we are considering is necessary to remedy a time deadline arbitrarily imposed on an important research clause in the act.

When we unanimously passed the Air Quality Act in November, 1967, we established a system for dealing with air pollution problems on a regional basis, charging State and local governments with major responsibility for the implementation of the various provisions contained in the act. To do so, however, the States depend on information—information made available by the Federal Government—on up-to-date feasible and economical technology for the prevention and control of air pollution stemming from stationary sources such as factories and powerplants, and from motor vehicle engines. In the long run, we may very well need the development of automotive propulsion systems other than the present internal combustion engine.

Today, more than two-thirds of all pollution emitted into the Nation's air is generated by combustion of fossil fuels and by the operation of ever-increasing numbers of motor vehicles. It is critical that Federal research,

development, and demonstration activities in this field be allowed to continue without lapse. Under section 104 of the Air Quality Act of 1967, the National Air Pollution Control Administration of the Department of Health, Education, and Welfare is carrying out numerous projects to develop efficient techniques for combatting sulfur oxide pollution, a major pollution problem arising from the combustion of fossil fuels. It also continues to improve methods for controlling emissions from the present automobile engines and has begun work on the development of alternate means of propulsion for motor vehicles.

The provisions of section 104 make research and development funds available until used for these purposes beyond the fiscal year in which they were appropriated. This allows for much needed flexibility in planning and execution of projects which frequently must exceed the artificial limits of a fiscal year. However, this special feature expires at the end of fiscal 1969 unless extended by the Con-

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gress. The amendment before us today would accomplish extension to the end of fiscal year 1970, corresponding to the date when the entire act will be considered for continuation.

Another feature of section 104 clarifies the legality of supporting the construction and installation of control technology on private property for testing purposes. Quite logically, an industrial plant using fossil fuels is the best site for an evaluation of new pollution control equipment designed to combat fumes from stationary sources of pollution.

I am convinced that passage of H.R. 12085 is needed now to assure the continuation of NAPCA research and development projects now underway, and to provide for the inception of additional, equally important efforts that will stimulate industry to install air pollution control equipment in their plants and to accelerate the development of low-pollution engines for automobiles. I urge the bill's passage.

Mr. DONOHUE. Mr. Chairman, this bill before us, H.R. 12085, is designed to amend the existing Clean Air Act, in order to extend the program of research control of air pollution resulting from the combustion of fuels and motor vehicles.

Mr. Chairman, it has been authoritatively established that the motor vehicle represents the major single source of air pollution in this country, that this air pollution is a significant contributor to dangerous disease and costs the American economy at least $12 billion a year. The Federal Government, through the Department of Health, Education, and Welfare, has the primary responsibility for regulatory action to deal with the national problem of motor vehicle air pollution. It is certainly obvious that this Nation has an urgent need to find new and improved methods and means of dealing with this particular fuel combustion and motor vehicle air pollution problem. The basic purpose of this measure before us is to approve the continuing availability, until expended, of authorized funds to project prudent planning and scheduling of long and large-scale research and development and demonstration projects that will enable the Federal Government to take the lead in effectively controlling and preventing the continuing and ever-increasing, very dangerous pollution of the air from combustion fuels and motor vehicles. Mr. Chairman, by any standards, I think it must be clearly judged that this is a wise and urgent legislative measure in the national interest, and I hope that the House will overwhelmingly accept it without extended delay.

Mr. BIAGGI. Mr. Chairman, the Air Quality Act of 1967 includes an unusual section which provides a realistic basis for improved research and development activities in automotive air pollution control. Recognizing that present control technologies are inadequate, section 104 directs the Secretary of Health, Education, and Welfare to conduct research and development activities into new and improved methods and low-cost techniques for the prevention and control of air pollution resulting from the combustion and evaporation of fuels, and from the use of the present automobile internal combustion engine. To accomplish these ends, funds under this section can remain available until used. Thus, the provision of the 1969 amendments removes the need for a research development or demonstration project to be completed within any one fiscal year. It also permits the National Air Pollution Control Administration, the Health, Education, and Welfare agency charged with the implementation of the Air Quality Act, to eslect the best possible contractors and grantees, and to start projects at the most advantageous time. A further advantage provided by these amendments is the ability to place control experiments on private property if necessary for testing.

As a result of the enactment of the Air Quality Act of 1967, the National Air Pollution Control Administration has embarked on an extensive 5-year plan for research and development on automotive pollution control. This plan attempts to define specific goals and ways and means to attain them, and includes the work of NAPCA research and development projects as well as those of other Federal agencies.

Since passage of the act, NAPCA has started numerous resarch and development activities related to motor vehicle pollution control. Projects include new control systems to curb carbon monoxide and hydrocarbon emissions from internal combustion engines, and for the control of nitrogen oxide emission; techniques to reduce emissions of particulates, especially lead; investigations of alternate fuels for use in internal combustion engines, and of odors emanating from diesel engines used by trucks and buses. The use of unconventional engines such as the turbine and steam and electric-powered engines, for use in private cars also is being scrutinized.

This is a good beginning. But it is only a start. The funds authorized for fiscal year 1968 totaled $35 million, and for 1969 $90 million, with those funds appropriated for section 104 remaining available until expended. However, as of now, authorizations for research and development activities under section 104 will expire at the end of fiscal year 1969.

Mr. Chairman, in the words of the first progress report by the Secretary of Health, Education, and Welfare to the Congress pursuant to the Air Quality Act of 1967:

> In terms of the total quantity of pollutants, the automobile represents the most important single source of air pollution in the United States today.

The Federal research and development program in automotive air pollution control has, by HEW definition, three primary objectives:

> 1. To stimulate optimum activity by the private sector in developing control technology; 2. to fill the research gap areas that are not receiving attention elsewhere; and 3. to develop the technical base for establishing future Federal emission standards.

I feel that it is essential that these objectives be met as soon as possible. I feel that it is essential that NAPCA be provided on a continuous basis with adequate tools by the Congress to proceed with the implementa-

tion of its plans; that sufficient funds be made available under section 104 of the act to provide for uninterrupted, accelerated research, development, and demonstration activities that will result in concrete and useful findings of benefit to the whole Nation.

I believe that NAPCA's plans of investigating alternate modes of propulsion for automobiles while devising better control systems for existing internal combustion engines is commendable. A limit will no doubt be reached beyond which further emission reductions will not be feasible technically or economically, and we must be prepared for this eventuality.

Dr. Lee DuBridge, Presidential science adviser, addressed himself to this topic on August 26 when he said that, although the Nation would have to "depend on the gasoline engine and its improvement for the next 10 or 20 years," it "should not be neglecting the possibility that some new unconventional type of automotive propulsion device may be needed to keep the pollution problem within limits in the 1990's and the year 2000."

Congress has approved the Air Quality Act of 1967 unanimously. Let us now make sure that we provide for its proper and timely implementation, by providing the fiscal means to carry out its intent.

Mr. TIERNAN. Mr. Chairman, there is perhaps no other area that we deal with here in the Congress that is more vital yet receives less attention than the problem of controlling our environment.

In adopting the Air Quality Act, the Congress set up an intergovernmental system for dealing with air pollution problems on a regional basis. State and local governments have a major share of the responsibility for making this system work. They have a particular responsibility for dealing with air pollution problems arising from the many industrial, commercial and other stationary sources located in virtually every urban community in the Nation and in many small towns and rural areas.

It is essential that the research and development activities authorized in section 104 be continued, particularly those activities relating to the air pollution problems arising from the combustion of fossil fuels to produce electric power and heat, from the operation of motor vehicles, and also emissions from aircraft engines. Together, fuel combustion sources and motor vehicles account for more than two-thirds of all discharges of pollutants into the Nation's air resource each year.

The problems of environmental pollution, unless dealt with quickly and effectively, will plague mankind ad infinitum. The steps contained in H.R. 12085 are but the bare minimum. I urge my colleagues to support this vital legislation.

Mr. MATSUNAGA. Mr. Chairman, I rise in support of H.R. 12085, which would amend the Clean Air Act to extend the program of research relating to fuel and vehicles.

The legislation before the House would extend through June 30, 1970, the authority in section 104 of the Clean Air Act providing for research and development in preventing and

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controlling air pollution from fuel combustion and motor vehicles. The sum of $18.7 million, all within the National Air Pollution Control Administration's overall budgetary request for fiscal year 1970, would be authorized under this proposal. The legislation is intended to do nothing more than to channel the funds involved into the best of two existing air pollution control and prevention programs.

Our Committee on Interstate and Foreign Commerce has discovered the

disturbing fact that the amount spent on research into motor vehicle exhausts has been a little over 3 percent of the National Air Pollution Control Administration's budget, to deal with the source of 60 percent of the air pollution problem. Clearly, a reallocation of fiscal emphasis is urgently needed. This bill would put our money into the biggest battle against air pollution, and it is a battle that must be won.

With continued leadership by the Federal Government, proper planning and regulatory action by State and local governments, and support from the private sector, I am convinced that the fight against air pollution will eventually be won. In the meantime, greater effort must be exerted to control or eliminate the emissions from motor vehicles. H.R. 12085 will make this increased effort possible.

Mr. Chairman, I urge unanimous passage of the bill we are considering.

Mr. STAGGERS. Mr. Chairman, I have no further requests for time.

Mr. SPRINGER. Mr. Chairman, I have no further requests for time.

The CHAIRMAN. The Clerk will read.

The Clerk read as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 104(c) of the Clean Air Act (42 U.S.C. 1857-1) is amended by striking out "for the fiscal year ending June 30, 1969" and inserting in lieu thereof "for each of the fiscal years ending June 30, 1969, and June 30, 1970".

COMMITTEE AMENDMENT

The CHAIRMAN. The Clerk will report the committee amendment.

The Clerk read as follows:

Committee amendment: Strike out all after the enacting clause and insert:

"That the first sentence of section 104(c) of the Clean Air Act (42 U.S.C. 1857b-1(c)) is amended by striking out 'and', and by striking out the period at the end thereof and inserting in lieu thereof ', and for the fiscal year ending June 30, 1970, $18,700,000.' "

AMENDMENT TO THE COMMITTEE AMENDMENT OFFERED BY MR. FARBSTEIN

Mr. FARBSTEIN. Mr. Chairman, I offer an amendment to the committee amendment.

The Clerk read as follows:

Amendment to the committee amendment offered by Mr. FARBSTEIN: On page 2, after line 2, insert:

"SEC. 2. Title II of the Clean Air Act is amended by renumbering section 212 as section 213 and by adding immediately after section 211 the following new section:

" 'INTERNAL COMBUSTION ENGINE BAN

" 'SEC. 212. (a) Notwithstanding any other provision of law, except as otherwise provided in subsection (c) of this section, it is hereby prohibited to manufacture for sale, to sell, or to offer for sale, or to introduce or deliver for introduction into commerce or to import into the United States for sale or resale, any new motor vehicle powered by one or more internal combustion engines and any new internal combustion engine manufactured for use in a motor vehicle if such vehicle or engine is manufactured after January 1, 1978.

" '(b) Violations of this section shall be subject to injunction and the penalties provided in sections 204 and 205 of this Act in the same manner and to the same extent as is provided therein for violations of paragraphs (1), (2), and (3) of section 203(a) of this Act.

" '(c) This section shall not apply to any new motor vehicle powered by one or more internal combustion engines or to any new internal combustion engine manufactured for use in a new motor vehicle which vehicle or engine produces a level of exhaust emissions of not more than .5 gram per mile of reactive hydrocarbons, 11 grams per mile of carbon monoxide, and .75 gram per mile of oxides of nitrogen.' "

Mr. FARBSTEIN (during the reading). Mr. Chairman, I ask unanimous consent that the further reading of the amendment be dispensed with.

The CHAIRMAN. Is there objection to the request of the gentleman from New York?

There was no objection.

Mr. FARBSTEIN. Mr. Chairman, I offer an amendment to H.R. 12085 to prohibit the manufacture and sale of cars powered by internal combustion engines after January 1, 1978.

This ban would not apply to engines which meet the equivalent of the pollution emission standard for automobiles purchased by the State of California which are 0.5 gram per mile of reactive hydrocarbons, 11 grams per mile of carbon monoxide, and 0.75 gram per mile of oxides of nitrogen. The Federal standards for the 1970 models, which are the most stringent to date, are 23 grams per mile of carbon monoxide and 2.2 grams per mile of hydrocarbons.

I offer this amendment because I represent the city which the Public Health Service has ranked as the most polluted in the country. I represent a city which has suffered from inversions in the air, periods when the winds failed to blow away the carbon monoxide, the lead particles, the hydrocarbons, and the other deadly pollutants which were produced by the internal combustion engine automobile with the result that many died.

I come from a city where 2 million autos daily crowd into the city spouting forth dirt and heavy smoke which corrodes every material with which it comes into touch.

I offer this amendment because I want to do something about this situation.

Until now, most of the effort to combat auto-caused air pollution has come through utilization of emission control devices attached to the crankcase or tailpipe. The use of such devices has brought a noticeable reduction in emission levels of certain auto pollutants. However, these devices can only partially reduce the level of pollution emission. As the Air Pollution Control Administration projection of the level of auto pollution suggests, the increasing number of cars will begin to offset the decrease in pollution brought about by exhaust emissions control devices after 1980.

POLLUTION LEVEL FROM AUTOMOBILES BASED ON 1970-71 AIR POLLUTION CONTROL ADMINISTRATION

HYDROCARBONS

[In millions of tons per year]

	1968	1972	1975	1980	1990
Urban	7.0	6.0	5.0	4.5	7.0
Total emissions, nationwide	12.0	10.0	8.5	7.0	10.0
CARBON MONOXIDE					
Urban	47.5	40.0	32.5	27.5	43.0
Total emissions, nationwide	68.0	55.0	45.0	37.5	58.0
OXIDES OF NITROGEN [1]					
Urban	3.0	4.0	4.5	6.0	10.5
Total emissions, nationwide	6.5	8.5	9.5	12.0	19.5

[1] There are no current emissions standards.

The primary source of pollution is the internal combustion engine. Since it cannot uniformly burn all of the gasoline it consumes, it inherently must produce a certain level of pollutant emission. Control devices can modify its output, but they cannot prevent it. Other types of propulsion systems are capable of being emission free. They can operate with little or no release of deadly pollutants into the atmosphere.

The need to seek alternatives to the internal combustion engines, which do not have to pollute, was recognized by the President and his Environmental Quality Council last week when they viewed alternatives to the internal combustion engine and heard a warning from Dr. Lee A. DuBridge, the Presidential science adviser, that if we do not ban the internal combustion engine sometime in the future, we would no longer be able to breathe anything but noxious air.

In spite of this, the auto industry has resisted all efforts to reduce air pollution by developing an alternative to the internal combustion engine—just as it resisted efforts to place safety belts and other safety equip-

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ment in the American car and just as it resisted efforts to install pollutant reduction equipment.

This is dramatically demonstrated by the recent Justice Department suit against the big three auto companies, charging them with combination and conspiracy to develop and manufacture motor vehicle air pollutant equipment. Two years of Los Angeles Federal grand jury hearings has brought out auto company activity going back to 1953, one year after the link between the auto and air pollution was first established. The auto companies agreed at that time to install pollution abatement equipment only if all companies agreed to install such equipment at the same time. And on at least three subsequent occasions, the companies met and agreed to attempt to delay installation of pollution abatement equipment. In 1961, they agreed to delay the installation of the positive crankcase until the 1963 model. In late 1962 and early 1963, they agreed to delay the adoption of an improvement to the crankcase ventilating device, and in early 1964, the introduction of a new

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exhaust emission control measure until the 1967 model year. In 1964 the auto companies agreed to tell the State of California the technology would not exist to install tail emission devices until the 1967 model year although they had the technological know-how and devices to do so.

What we are hearing today is the same thing. Dr. Fred Bowditch, director of GM's emission control engineering, told a panel of the California State Assembly, which was then considering the Senate-passed bill, to ban the internal combustion engine by 1976, that—

> The know-how isn't there to do the job by 1976. (Los Angeles Times, August 1, 1969.)

I do not believe Dr. Bowditch was under oath for at a press conference given by GM at its research laboratory, after the California bill had been safely killed, he answered a reporter's query of "What would you have done if the panel had passed the bill?" with the statement:

> We would have complied, and of course, General Motors would have remained in the business of producing automobiles. (San Fernando Valley News, August 7, 1969.)

Apparently the big three just do not want to tell the American public the truth. Hearings by the Senate Commerce Committee have revealed that low-cost, low-emission vehicles can be produced today but that none of the big three is actively moving toward this goal because they are satisfied with the market status quo. Only American Motors, which is not satisfied with its share of the current market, is moving to explore alternative methods of propulsion. I am inserting at this point the summary of the report by the Senate Commerce Committee which evaluated one alternative engine—the Rankine propulsion system.

[From "The Search for a Low-Emission Vehicle," Report prepared for the Committee on Commerce, U.S. Senate, 1969]

THE RANKINE PROPULSION SYSTEM

Introduction

In the Rankine or vapor cycle propulsion system,[51] the ignition of the fuel takes place without explosion outside the engine in the burner.[52] The heat produced by the burning of the fuel in the burner is used to heat up a working fluid—water or some other neutral fluid. When the fluid is heated, it converts to vapor. This conversion takes place in a monotube steam generator. The vaporized fluid becomes the power source for the engine. It is conducted to the engine, where it is used to drive the pistons or turbines which turn the shaft and drive the wheels. Valves control the entry and exit of the vaporized fluid. Instead of an explosion within the piston chamber, as occurs in the internal combustion engine, there is simply the entry and exit of a vaporized fluid. In a closed Rankine cycle system, the exhausted vapor is captured, run through a condenser resembling a radiator, cooled, and

returned to its liquid state where it is ready to be heated again in the generator.

A Rankine propulsion system does not utilize a transmission. The car can accelerate from a dead stop without a transmission because the engine delivers high torque at low speeds. Its high-torque qualities may, however, require a simple system to gear down the drive train in order to prevent wheel spin.[53]

Footnotes at end of article.

When the vehicle is at a standstill, the vapor source to the engine is cut off, and the engine does not run. The vehicle is put in motion by simply opening a valve. Acceleration is very good. An engine with an engine rating of 168 horsepower will accelerate from 0 to 60 miles per hour in 9.5 seconds. An ICE with a rating of 250 horsepower propelling the same load takes 10 seconds to accelerate from 0 to 60 miles er hour.[54] Smaller horsepowered Rankine engines accelerate at rates equivalent to larger horsepowered ICE's because the Rankine engine loses less power between the engine and the wheels since there is no complicated transmission.

Braking for a Rankine-powered vehicle can be accomplished by conventional means, or else the engine, by means of reverse torque, can brake the car. Reverse torque can be employed in emergency situations only or in each braking maneuver.[55]

The Rankine propulsion system is adaptable to present automobiles. The burner, generator, and condenser can fit within the existing space under the front hood.[56] The engine can be placed in the present transmission casing or further back under the car near the differential. Existing auxiliaries can be run off power provided by a small Rankine turbine engine which operates even when the main engine does not: thus heat or air conditioning can be provided at all times.[57]

Emission characteristics

Unlike an ICE, combustion of fuel in the burner of a Rankine cycle system is almost complete. This means that under normal operating conditions, without attempts at emission control, a steamcar produces almost no pollution. In emissions tests conducted on the 8-year-old Williams Steamcar the following results were obtained:[58]

Hydrocarbons	20 p.p.m.
Carbon monoxide	0.05 percent
Nitrogen oxides (no lead)	40 p.p.m.
Lead	None

Compares these results with the uncontrolled ICE:[59]

Hydrocarbons	900 p.p.m.
Carbon monoxides	3.5 percent
Nitrogen oxides	1,500 p.p.m.
Lead	(f)

The low-emission characteristics of the external combustion engine (ECE) are built in. This is an important feature. There are no emission controls to maintain or repair. Deterioration is virtually nonexistent. As long as the engine functions, it will function with low-emission characteristics. Compared to the controlled ICE, then, the Rankine systems emission characteristics are far superior.[60]

Noise characteristics

The Rankine system not only helps eliminate air pollution, it also greatly alleviates noise pollution. A Rankine vehicle cuts perceived vehicular noise by a factor of 4 at peakloads which is equivalent to multiplying the distance between sound and person by 10.[61] Trucks and buses gearing up and gearing down are the greatest generators of surface vehicle noise. By operating under steampower, the need for a transmission in trucks and buses is eliminated; and their roar can be reduced to a tolerable whirring sound. Again, noise pollution control like air pollution control is a built-in quality of the steam engine. No practical amount of muffling of the ICE can replicate the inherent, relative silence of the ECE.

Fuel requirements

The Rankine vehicle operates on a variety of fuels.[62] It can burn gasoline from the pump of any service station, or it can operate equally as well, perhaps, better, on low-grade white kerosene. The steamcar does not require leaded gasoline with high octane ratings. Rankine fuel, then, is less refined, less costly, and less polluting than ICE fuel.

Fuel consumption tests on existing steam vehicles and consumption projections for future Rankine vehicles indicate that such vehicles get, or will get, better fuel mileage than their ICE counterparts.[63] The Williams steamcar averaged 20 miles per gallon on kerosene in a conventional gasoline mileage test.[64] Comparable ICE vehicles get only 15 miles per gallon. Representatives of General Motors testified that the steam engine consumed 0.70 pounds of fuel per horsepower hour compared to the ICE's consumption rate of 0.50.[65] Further examination of those figures revealed, however, that the loss of horsepower in the drive train was not represented in the ICE figures.[66] It is fair to conclude that steam engine mileage will be as good as the ICE mileage—probably better—and that it will consume less expensive fuels which do not have lead and other additives that add to air pollution.[67]

Cost

Vintage steamcars were quite expensive compared to their ICE competitor, but this was primarily due to low-volume, nonassembly line, production.[68] Dr. Robert Ayres maintains that a steam-powered vehicle would cost less to produce on the same scale, and the same amount to produce on a smaller scale, than a com-

parable present ICE vehicle.[69] Dr. Morse estimates that the steam engine will cost 1.5 times as much as the present ICE; and General Motors Co. boosts that to three times as much.[70] It is possible that the GM figures take into account only the comparative engine costs, not total drive train costs.[71] The Battelle research report properly concluded:[72]

"It is impossible to fix a specific cost figure based on current data because no figures are available which reflect volume-production quantity. The best available evidence indicates that the specific cost will be less than that of a comparable diesel engine and about equal to that of an equivalent V-8 engine with automatic transmission. The additional cost of a transmission will be eliminated with steam power."

Maintenance and reliability

Testimony relating to the maintenance and reliability characteristics of the Rankine propulsion system was conflicting. Ford Motor Co. in the hearings considered the Rankine engine to be more complex than the present ICE.[73] On the other hand, Professor Gouse thought that the Rankine engine was simpler, particularly when compared with an ICE with emission control:

"If you look under the hood of a new car, the number of valves and devices added for exhaust emission control are not negligible, and the next year or two may bring more." [74]

A recent study has compared the reliability and maintenance characteristics of the ICE and Rankine systems. The following tables illustrate the better maintenance and reliability of the Rankine system:[75]

Other characteristics

1. Safety

In his testimony, Mr. Hafstad of General Motors stated that the high-pressure steam used to propel steam engines created a considerable safety hazard.[76] In other steamcars the danger of boiler explosions may have been real.[77] Today, however, steampower is certainly safe.[78] Mr. Williams discussed this point as follows:[79]

"Let me state exactly what is likely to happen and what might happen if a steamcar is involved in a collision. The modern monotube boiler is totally different from the kind alluded to by Detroit. It is composed of a long length of high-strength steel tubing—of ⅜- to ½-inch diameter—coiled tightly in a spiral and helical shape. It is nothing like a storage boiler used in factories and homes. The monotube steam generator has only a

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very small amount of steam in it at one time. In a collision, the strong coil would be deformed or distorted—nothing more.

"Suppose it ruptures—what happens? First, a small piece of tubing, three-eighths of an inch in diameter, breaks. The result is that the very small amount of steam contained within the coil is dissipated in a matter of seconds, doing virtually no damage.

"There is no large vessel to disintegrate like a huge grenade. In short, the danger of scalding is very slight, and the likelihood of serious danger is not remotely comparable to what happens when 20 or so gallons of high-octane fuel are ignited in a pileup. Here you have an explosion."

There is no danger of boiler explosion in modern monotube steam boilers that would be used in today's steamcar.[80]

2. Possibility of Freezeup

The problem of freezeup does not present serious obstacles.[81] Traditional antifreezes may not work in systems which operate at 1,000° F. —but other antifreezes probably can be developed. Ford Motor Co. assumes that such freezing is a solvable engineering problem.[82]

Mr. Pritchard, in his testimony, suggested alternative solutions to the freezing problem.[83] First, the water tank could be constructed with sloping sides so that freezeups would do no damage and the burner could thaw out the frozen water supply rather quickly. Second, a small pilot light within the burner could keep the water source from freezing—a solution employed in several contemporary steamcars.

Another solution to the freezing problem is to use a working fluid with a low freezing point. Freon, for example, is being tested by some steamcar builders.[84] When freon is used in the closed-cycle Rankine system, the problem of freezeup is virtually eliminated.[85]

3. Water Consumption

In older steamcars, water consumption was a problem. The steam cycle was not completely closed; therefore, steam escaped from the vehicle and caused appreciable water loss. Today a hermetically sealed closed-cycle Rankine engine consumes at most 1 gallon of working fluid per 1,000 miles.[86] Water consumption is no longer a problem.

4. Lubrication and Its Effects on Boiler and Condenser Life

Lubrication of the steam engine can be accomplished in a variety of ways. In some systems the lubricant is placed directly in the working fluid. Some testimony in the hearings suggested that impurities in the water and the presence of lubricants would have a detrimental effect on boiler and condenser life.[87] On the basis of experiences with the Williams steamcar there does not seem to be a problem; high-velocity flow through the boiler tube prevents scale from accumulating.[88]

Thermo Electron uses solid fluorocarbon lubricants in the working fluid system. By placing this type of lubricant in the system, the seals between the cylinder and the crankcase can be eliminated. This allows a simpler piston

setup. There is no need for a cross-head piston and a unit similar to the single-power piston in the ICE is possible.[89]

5. Startup Time

Older steam automobiles with large water supply in their boilers took as long as 30 minutes to start. Slow startup, then, is associated with steamcars. Today, with the modern steam engine and its monotube boiler, initial startup time should take less than 20 seconds.[90] After the initial startup and for about a 3-hour period after shutdown, the startup would be instantaneous. Today, startup time is not appreciably longer than for an ICE.

Footnotes at end of article.

Recent developments

Appendix A contains correspondence from individuals or business enterprises working on the development of low-emission vehicles. Appendix B contains information from secondary sources on low-emission vehicle development. This section will not attempt to discuss all recent developments in this area but will merely highlight some of the major activities. For complete details on important new developments in the low-emission field the reader should consult the appendices.

California has recently given impetus to the development of Rankine cycle propulsion systems.[91] By a resolution the California Legislature has asked the California Highway Patrol to test Rankine cycle patrol vehicles in six different geographical regions of the State.[92]

The California Highway Patrol demonstration project initially was to be funded by General Motors Corp., which had agreed to pay a selected vendor $20,000 toward the cost of developing an engine, and up to $100,000 for outfitting six operational patrol vehicles.[93] Because of problems of proprietary disclosure of information and hardware,[94] the Rankine engine manufacturers rejected the General Motors offer. After several false starts,[95] the California Highway Patrol has accepted letters of understanding from two firms which will each furnish a highway patrol vehicle to the patrol for testing within the next 6 months.[96] Thermodynamics Systems, Inc., has been given a late model Oldsmobile by the California Highway Patrol; it will convert the vehicle to steam and return it to the patrol for testing.[97] No specific details about Thermodynamics' powerplant are presently available.

Lear Motors Corp. of Reno, Nev., will provide the California Highway Patrol with a test vehicle by August 1, 1969. William Lear has purchased a 1969 Dodge Polara, the vehicle presently used by the patrol, and is converting that vehicle to steam.[98] Lear reports that the Rankine system he is installing will fit within the present space under the front hood. The engine will have a horsepower rating of at least 300 and will meet all necessary acceleration and speed requirements of the patrol. Lear reports significant advances related to the auxiliary system:[99]

"I have enclosed for your interest a diagrammatic representation of our basic power system. You will see that an auxiliary package is in operation whenever the system is used. This auxiliary unit provides support for the system proper and, in addition, powers the various services required by the vehicle, such as the air conditioner, power steering pump, alternator, et cetera. Under this arrangement, even though the vehicle were parked with the motor not running, full accessory usage is guaranteed. This has direct application to our highway patrol vehicle where there is a heavy demand for auxiliary power (rotating lights, power supplies, transceivers, etc.) under static conditions. In a passenger automobile, the car could be heated or cooled under 'parked' conditions."

California is also undertaking a Rankine engine demonstration project financed by the Department of Transportation.[100] This project involves the installation and testing of Rankine systems in buses in the San Francisco area. The objective of the project is "to demonstrate the complete operational feasibility and superiority and public understanding and acceptance of an external combustion engine-based propulsion system for urban mass transit bus use." [101] Lear Motor Corp. has announced it plans to bid on the engine contract for this project.

The Department of Transportation has recently announced the award of a second steam bus demonstration contract.[102] The city of Dallas will soon have buses powered by Rankine engines using freon as the working fluid. The Department of Transportation selected the freon engine for testing in the Dallas project because it appears to reduce difficulties with freezing, lubricating, and starting.[103] The engine will be furnished by Kinetics Corp. of Sarasota, Fla.; engineering work on the project will be done by Vought Aeronautics Division of Ling-Temco-Vought aerospace industry.

The most publicized activity in recent months in the field of Rankine propulsion system development is Lear Motor Corp.'s announced plans to enter a steam-powered racer in the 1969 Indianapolis 500. There are several interesting accounts of Mr. Lear's plans. (See app. B.) Assuming that race officials allow the steam racer to compete,[104] it will be interesting to watch its performance when competing with traditional power plants. Mr. Lear is not alone in his steam racer plans; Mr. W. D. Thompson of San Diego, Calif., also has announced plans to enter a steam racer in a future Indianapolis 500.[105]

In summary, there has been considerable activity in the Rankine cycle field in recent months. This activity has already produced results which reinforce the optimism of Rangine cycle proponents. On the basis of current

developments and existing technological capability,[106] there is but one inescapable conclusion.

CONCLUSION

The Rankine Cycle Propulsion System Is a Satisfactory Alternative to the Present Internal Combustion Engine in Terms of Performance and a Far Superior Engine in Terms of Emissions.

This conclusion is based upon the above discussion. The Rankine vehicle is more economical to operate because it gets better gasoline mileage using less expensive fuels,[107] and because it has better maintenance and reliability potential.[108] Its acceleration, auxiliary operation, and braking characteristics are superior to those of the ICE. Alleged "problems" in applying Rankine cycle systems to automotive use have been or are being solved. The Rankine cycle engine is as safe as the ICE;[109] it consumes no more water;[110] freezeup can be avoided;[111] and startup time is satisfactory.[112] In terms of the all-important exhaust emission characteristics, the Rankine cycle system is far superior to the ICE,[113] and if the ICE becomes more competitive in this area, it will become less competitive in terms of gas mileage, maintenance, and reliability.[114] These assertions have been confirmed in a recent report, entitled "Critical Comparison of Low-Emission Otto and Rankine Engine for Automotive Use," delivered at the International Automotive Engineering Congress in Detroit, Mich., on January 13, 1969.[115] The authors of this report conclude: [116]

"The Rankine engine has the potential of being better than the Otto cycle engine in maintainability and reliability, fuel economy, and exhaust emissions. Also, the Rankine engine should be at least comparable in initial cost and safety in case of accident * * *.

"It is, therefore, recommended that the automotive industry seriously consider the Rankine engine as the future powerplant and that the chemical and petrochemical companies concentrate on the development of the 'ideal' fluid."

Opponents of change may dispute the conclusion reached in this report. But their previous attacks on the feasibility of the Rankine cycle engines are no longer viable; they will have to find new criticisms. For example, Chrysler Corp. can no longer say that the problem of cold weather operation is "a real impediment to the successful application of steampower to automotive vehicles." (See Chrysler letter, Feb. 18, 1969, app. A). It presents no such impediment.[117] Ford Motor Co., in face of the evidence, can no longer argue that complexity is a disadvantage for the Rankine vehicle.[118] Finally, General Motors

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should reevaluate its emission-reduction economics charts.[119] In terms of cost, General Motors lumps Stirling, gas turbine, and steam engines in the same category and concludes they are twice as expensive as controlled ICE's. This is simply not the case: All other cost estimates place controlled ICE's and Rankine systems in comparable categories. General Motors probably neglected to include in its comparisons the substantial cost of the ICE transmission—a transmission not required in the Rankine cycle system.[120]

Opponents of the Rankine system will be hard put to find new criticisms. Although Lear Motor Corp. has been in operation only 6 months, it has put together a research, development, and production program that will place a racing vehicle in the Indianapolis 500 and will deliver an operational highway patrol vehicle to the State of California.[121] Progress in other areas has been as rapid.[122] This progress has taken place without a massive infusion of research and development money; existing technology has been applied. Any critic of the Rankine system will have to confront the fact that Rankine system development is in an embryonic state; the potential for improvement far outstrips any potential for improvement of the ICE upon which immense amounts of capital have already been expended without producing startling improvements in emission or other characteristics.[123]

Finally, it should be pointed out that the Rankine propulsion system that is being developed today is not new in the sense that it has just come within our technological reach. Without the myopic persistence of the automobile industry in devoting most of its research funds to the ICE, a reliable, low-polluting Rankine cycle engine could probably have been developed 20 years ago.

OBSTACLES TO RANKINE CYCLE DEVELOPMENT

(1) *Inertia of automobile industry*

The auto industry is committed to emission control of the ICE rather than development of a low-emission external combustion system.[124] At the hearings General Motors stated that "we continue to believe that clean air quality objectives can be achieved most quickly and at a lower price through further development of the internal combustion engine." [125] In a recent letter to the Senate Commerce Committee General Motors stated:[126]

"To summarize, we are actively investigating a number of energy conversion methods, including steam engines, which offer potential for satisfying automotive power requirements. However, present technology indicates that the gasoline engine still offers the best compromise as to cost, durability, reliabiltiy, economy, performance, efficiency, and the control of pollutants."

To substantiate the above claims General Motors has prepared several charts showing pollution-reduction economics.[127] In every case their charts purport to show that in the 1970's the internal combustion engine will match the

pollution performances of the alternative powerplants at an expenditure of at least a third less.[128]

Ford Motor Co. stresses that it is "aggressively pursuing all avenues leading to the ultimate goal of clean air." [129] The main thrust of the Ford emission control program has been the development of control systems for the internal combustion engine. Ford has been a leader in a reported $7 million automobile and petroleum interindustry emission control program (IIEC) based on a systems approach concept for solving the common problem of emissions.[130] Ford announced:

"We have not met all our emission objectives as yet, but we are quite gratified with the results achieved to date. The second vital phase of the engineering problem—proving the durability of these hardware systems—is also underway but the major efforts in this area lies ahead." [131]

Footnotes at end of article.

Ford also reports engineering and research work with alternate power sources, particularly the gas turbine, which is powering Ford trucks carrying cargo from Michigan to plants in Ohio.[132]

Without disparaging their efforts at ICE emission control, it would seem that neither Ford nor General Motors plans to work toward the development of what appears to be a more promising Rankine cycle propulsion system. A response from Chrysler Corp. indicates they are of like mind.[133]

None of the "Big Three" automobile manufacturers are working toward developing a Rankine cycle vehicle. Only American Motors Corp. reports an interest in Rankine propulsion development: [134]

"We are pursuing a program to develop the application of steam as a result of a suggestion by a highly regarded potential supplier of this type of equipment. We have only begun to consider this latter alternative but are presently optimistic about its mechanical possibilities.

"As you might imagine, American Motors is highly interested in developing a low-emission, mass-produced automobile. Not only would this have advantages from a social point of view, but we look upon it as a rare opportunity for our company."

The present juxtaposition of the approach to Rankine cycle development by the "Big Three" and American Motors is interesting. In the hearings, Ford Motor Co. said that "* * * it is often assumed that our industry would resist any radical change in automotive power systems because of our tremendous investment in existing production facilities. On the contrary, one of the reasons we are continually examining new power sources is that we must periodically update our designs, plants, and equipment to meet the ever-changing demands of our customers." [135] The Big Three must not see a customer demand for a low-emission, reliable Rankine cycle vehicle; American Motors, without a large stake in the existing market, at this time does see such a demand.

Senator Muskie's concern that "the momentum of the status quo may run counter to the public interest" is well founded.[136] There is no assurance that the present course set by the major automobile manufacturers will lead to the development of a low-emission, reliable internal combustion engine.[137] Their present course does seem to assure, however, that low-emission Rankine cycle propulsion units will not be developed by one of the major automobile manufacturers.

Ironically, Government, as the protector of the public interest, also may very well be pursuing a course contrary to the public's long-range interest. For example, in fiscal year 1967 the Department of Health, Education, and Welfare spent $3.2 million on automobile emission research.[138] Only $115,000 was spent for researching ICE alternatives; the rest went to refining the ICE.[139]

The inertia of the automobile industry toward the development of the Rankine cycle propulsion system is perfectly understandable. The auto industry has large sums committed to the present internal combustion engine in terms of development man-hours and production capabilities.

There are several other reasons why the auto industry is dragging its feet in the development of a Rankine propulsion system. As Ford Motor Co. has stated, the automobile industry changes its designs, plants, and equipment "to meet the ever-changing demand of our customers." [140] There is as yet no customer demand for a Rankine propulsion system the public is simply not aware of the advantages of the Rankine system as a power source for general-use vehicles. Not until a vehicle powered by a Rankine system is developed and widely publicized will there be even a limited customer demand for the Rankine-powered vehicle.

Not only is there no customer demand for a Rankine cycle vehicle, there is not even a general customer demand for a low-emission vehicle. When purchasing an automobile the individual consumer does not use emission control as one of his influencing criteria.[141] Although he may be opposed to air pollution in general, he does not normally shop for a low-polluting vehicle himself. In fact, he may shop for the highest allowable polluting vehicle because present pollution control devices interfere with the efficient operation of the engine and require constant adjustment. Because there is no consumer demand, the automobile industry's present posture toward Rankine systems specifically, and pollution control in general (especially before Federal emission stand-

ards), is understandable even though it may not be commendable.

Of course, there is presently customer demand for some of the benefits that the Rankine vehicle would offer. For example, the customer presently looks for good gas mileage and low-noise qualities. In addition the Rankine system has better maintenance and reliability characteristics than its elaborately controlled ICE counterpart. Finally, automobile manufacturers do not have to wait for customer demand before they act. How often have they created new customer demands through saturation advertising? As auto critic Ralph Nader once said: "Who wanted fins?"

(2) The petroleum industry

The petroleum industry is engaged in a joint auto-gas industry study of ICE emission control and will spend an estimated $19 to $25 million for research between 1967 and 1969.[142] It is probable that the petroleum industry and automobile industry are firmly wedded to each other in their approach to the problems of vehicular air pollution.

However, on January 30, 1968, the Wall Street Journal reported that "the automobile industry, in an apparent effort to simplify its own efforts to reduce auto-caused air pollution is now trying to shift part of the blame for dirty air to gasoline * * *. The oil industry, needless to say, is not pleased by the indictment of its products. 'They're just looking for someone to join them on the hot seat,' complains a research executive for one major oil company." The present rift between the automobile industry and petroleum industry may cause the petroleum industry to review its assumed present negative posture toward Rankine cycle systems.

In such a review the oil industry would have to balance the costs of producing "clean" gas against the costs of converting to lower grade fuels. It has been reported that the cost of "clean" gasoline would result in extra costs of 1 cent to 2.3 cents per gallon and an added investment of $1 to $3 billion.[143] There are no available cost estimates on the conversion of refineries from high-octane petroleum to kerosene, but such conversion would necessitate phaseout of existing refinery facilities and cause disruptions which no established industry favors. In addition to refining changes there would be per mile consumption changes downward and some changes associated with auto servicing and supply operations. Certainly the Rankine vehicle is preferable from the oil industry's standpoint to electric vehicles, but on balance the recent rift between the auto and petroleum industry is not likely to cause the petroleum industry to divorce itself from the automobile industry and come out in favor of a Rankine cycle system. Profitwise there is probably "nothing in it for them."

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(3) Costs of introducing Rankine propulsion system in face of industry inertia

Because the major automobile manufacturers apparently are not going to develop and market the Rankine propulsion system, such development and marketing will have to be undertaken independently. The obstacles to such an independent undertaking are enormous.

The price of direct entry into the passenger vehicle market has been estimated to be $300 to $400 million.[144] This price includes the money necessary to set up nationwide dealerships and nationwide service facilities as well as a cost increment because of anticipated subcontracting problems. In addition, it includes money necessary to sustain a fairly high rate of production in order to produce the vehicle at minimum cost so that it is economically competitive with its ICE counterpart. The extremely high price of entry will undoubtedly prevent any independent steam automobile manufacturer from directly entering the automotive market.

Such large capital expendtiure is all the more unlikely, given the risks of such an undertaking. Assuming the innovator meets with initial success, such success is likely to be short lived. The automobile industry is capable of responding to any innovative competitive threat by producing a Rankine vehicle of their own.

"The steam innovator is faced with some very difficult problems. His vehicle is general purpose and will probably require a fairly substantial dealer organization for initial success. A fairly high rate of production will probably be required for minimum cost. The possibilities of subcontracting for large quantities of components he will need are limited. Thus his capital and organizational requirements are heavier than for the electric car innovator. If he overcomes these difficulties and markets an attractive product, success is likely to be short lived. The automoblie industry could readily adapt its production and service complex to steampower if forced by serious competitive threat. Unless the steam innovator is much better, or luckier than most, he will be eliminated. What innovator will challenge the automobile industry in an area where the advantages accruing to him are small and the disadvantages overwhelming? [145]

Any development and marketing of a Rankine propulsion system will take place only when an entrepreneur overcomes the anticipated costs of direct entry. He must figure a way to reduce the cost of establishing nationwide dealerships and service centers and to reduce the cost of manufacturing his own nonpropulsion system automotive component parts. Ideally, he must also figure a way to market a price competitive product at a low initial production rate.

One way to accomplish these goals is to con-

tract with an existing automobile manufacturer to provide Rankine propulsion units for some of its vehicles. By marketing Rankine propulsion system units through an organization with existing dealer and service networks, initial capitalization costs in those areas would be considerably reduced. A new propulsion system would require some service investments, but these could be developed in conjunction with existing facilities. The cost of nonpropulsion unit parts would be eliminated because the automobile manufacturer would supply those parts. The remaining problem of manufacturing a price-competitive product during initial production could be overcome if the Rankine system manufacturer and auto company were willing to accept temporarily an after-tax profit margin lower than the existing one. Any such effort could be countered, however, by a corresponding profit reduction by industry members not producing Rankine-powered vehicles.

Another way to reduce entry costs is to sell Rankine vehicles in specialized markets until production is raised to a level where a company can offer vehicles generally at competitive prices. Such markets exist where vehicles such as buses, taxis, or trucks are used in fleet operations within a limited geographic area. Such fleet sales would not require extensive dealer networks. The servicing costs would be minimal because fleet operations usually have their own central servicing facilities. Unless the Rankine vehicle producer worked in concert with an existing automobile company, the costs associated with nonpropulsion automotive part procurement and low-volume production would still have to be sustained. Too, such an approach would not lead immediately to widespread development and marketing, but as an initial approach to Rankine development it may be the only practicable method available.

A final speculative approach, used alone or in conjunction with one of the others, might be to try to create a consumer demand for Rankine cycle vehicles by building prototype cars and publicizing their advantages. Once a customer demand has been created, then the automobile industry might respond by developing an innovative propulsion system. Ford Motor Co. suggests that customer demand guides innovative development. A successful race car, for example, built at a cost far below the $300 million direct-entry cost, might generate consumer demand for Rankine-powered cars, and Detroit might respond to this demand.

FOOTNOTES

[51] This report does not attempt to discuss in specific detail the various kinds of external combustion engines. The main focus in the hearings was upon the Rankine cycle engine. The report will primarily discuss that propulsion system.

TABLE 1.—PERFORMANCE OF AUTOMOBILES WITH VARIOUS 150-HP. POWER SYSTEMS

[Weight of auto plus load, 3,500 lbs.; tire pressure=28 p.s i ; tire diameter=2 ft.; standard air conditions; frontal area=22.4 ft.; CD=0.4; coefficient of friction between tires and road=0.6]

	Otto [a] cycle (engine rating=250 hp.)[b]	Vapor [c] reciprocator (engine rating=168 hp.)[d]	Vapor [e] turbine (engine rating=150 hp.)[f]
Top speed	117 m p.h	121 m.p.h	117 m.p.h.
0 to 60 m.p.h. acceleration	10 seconds	9.5 seconds	10 seconds.[g]
30 to 60 m p.h. acceleration	5½	5 seconds	6½.
Grade at 60 m.p.h	20 percent	22½ percent	20 percent.

[a] Transmission efficiency taken as 90 percent.

[b] 150 hp. corresponds to maximum torque condition, assumed to occur at 60 percent of maximum power. Engine assume to operate at constant 3000 r.p.m. during all calculated maneuvers.

[c] Transmission efficiency taken as 98 percent.

[d] 150 hp. corresponds to normal maximum power at maximum engine r.p m. (6,000 r p m.) Engine operates with fixed gear ratio; rotates at 3,000 r.p.m. at 60 m.p.h. Cutoff held wide open during acceleration to 60 m.p.h ; at 60 m.p.h. the engine develops 168 hp., and reaches 150 hp. at 7.5 seconds (50 m.p.h.). Engine could be designed never to exceed 150 hp. at slight penalty to acceleration time.

[e] Transmission efficiency taken as 98 percent for acceleration; 90 percent for other conditions.

[f] 150 hp. corresponds to normal peak power at 30,000 r.p.m turbine speed. Fixed gear ratio assumed during acceleration from 0 to 60 m.p.h. (30,000 r.p.m); turbine operates at 30,000 r.p.m. at all power levels once having reached 30,000 r.p.m.

[g] Traction limited. Turbine supplies more torque at start than traction can transfer.

There are two systems, however, which should briefly be discussed. General Motors testified that the Stirling engine was perhaps the best external combustion alternative to the internal combustion engine. Hearings at p. 44. The Stirling engine uses hydrogen or helium as the working fluid, and because of very high temperatures and pressures requires rather exotic and expensive alloys. It has excellent emission qualities, is more efficient than the steam engine (about 35 percent thermal efficiency), but is not economically competitive

except in large vehicles such as trucks or buses. Hearings at p. 13.

A Stirling engine has been used in an external engine-battery hybrid propulsion system. Id. at pp. 44-45. The low-emission engine is used to charge the electric batteries which serve as the power source for the drive train. Such hybrid systems could employ controlled internal combustion engines and might lead to reduction of air pollution. See hearings at pp. 242-244 for a discussion of these hybrid systems and their potential pollution advantages. See also, app. B for a recent article on GM's hybrid car ("GM Builds No-Smog Car").

[52] For a glossary of terms relating to external combustion engines see hearings at pp. 12-13.

[53] Professor Gouse testified that such gearing could serve to control acceleration, but such control might not meet with consumer acceptance. Hearings at p. 74.

[54] App. B (Critical Comparison Report):

[55] The ability of the Rankine engine to perform the braking maneuver may have some important pollution control effects. Investigations are currently underway to determine the amount of asbestos pollution caused by vehicles whose brake linings are composed of asbestos. (See supra note 10.) If asbestos from automobile brakes is found to be a serious health hazard, the Rankine vehicle could significantly reduce this danger by utilizing the engine in each braking maneuver, thus reducing wear on brakes—wear which throws small asbestos particles into the air.

[56] See app. A (Lear letter).

Testimony in the hearings as to the size and weight of a steam engine was somewhat conflicting. Dr. Robert Ayres stated at the hearings that "a closed-cycle steam engine weighs approximately 4 pounds per horsepower compared to the ICE's 3 pounds" (hearings at p. 4). "General Motors Co. suggested that the steam engine would weigh three times as much as the ICE" (id. at p. 48). "Ford Motor Co., in a chart comparing engine installations, indicated that the ECE and ICE would be of comparable size and pictured the engines occupying the same space within the vehicle" (id. at p. 30).

[57] See app. A (Lear letter). See also discussion in text accompanying note 99 infra.

[58] Hearings at 113. These results are well below the projected 1975 emission goals. The suggested national goals for 1975 are: Hydrocarbons, 50 p.p.m.; carbon monoxide, 0.5%; nitrogen oxide, 250 p.p.m.

[59] "Automobile and Air Pollution Report (II)," supra note 3 at p. 23.

[60] See App. A (Smith and Peterson letter) where current Rankine engine emission statistics are presented:

Total grams per mile of hydrocarbons, carbon monoxide, and oxides of nitrogen	*Grams*
California standards, 1970	27.2
California standards, 1972	25.9
California low emission vehicle, AB 356	12.25
1967 Smith and Peterson test	4.8
1968 Smith and Peterson capability	2.8

[61] Hearings at pp. 8 and 99.

[62] Hearings at p. 99. Of course, an engine will probably be designed to run on one particular type of fuel and be most efficient with that fuel.

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[63] See app. B. "Critical Comparison of Otto and Rankine Cycle Engines," at p. 14.

[64] Hearings at p. 115. The test was the seven-mode California cycle test.

[65] Id. at p. 48.

[66] Id. at p. 55.

[67] See app. B ("Leaded Gasoline Presents Hazards to Health").

[68] Id. at p. 8.

[69] Id.

[70] Id. at p. 48.

[71] See the graphs submitted by General Motors (app. A) which still show a differential in price of about 2 to 1 even when exhaust reactors are added to the ICE. Again, it is possible that the figures do not include transmission cost comparisons.

[72] See research report for HEW (National Center for Air Pollution Control), "Study of Low-Pollution Potential Power Sources for Urban Vehicles," Battelle Memorial Institute (March 15, 1968) at 61–62.

See also app. B, "Critical Comparison Report."

TABLE 3.—RELATIVE COST COMPARISON OF OTTO AND RANKINE SYSTEM

	Otto cycle	Steam reciprocator	Steam turbine	Organic reciprocator	Organic turbine
Engine [1]	$0.42	$0.40	$0.20	$0.40	$0.16
Heat addition		.20	.18	.18	.18
Heat rejection	.04	.10	.10	.10	.10
Transmission	.35	.15	.40	.15	.38
Accessories [2]	.13	.13	.11	.10	.10
Emission control	.06				
Total	1.00	.98	.99	.93	.93

[1] Engine cost includes fuel-injection system and ignition system.

[2] Accessories exclude air conditioning, power steering, power brakes, power seats, power windows.

[73] Hearings at p. 29. But see id, at p. 165, where the Ford data is challenged. Ford has been severely taken to task for its complexity ratings which testimony disclosed were based on guesses. See also id. at p. 163. A survey conducted in July by Industrial Research found that of the more than 400 scientists and engineers, 87 percent disagreed with Ford's claim that steam engines are more complex. See *Ideas*, "*Information on Developments in Electricity and Steam.*" November 1968, at p. 15.

[74] Hearings at p. 82.

[75] See app. B, "Critical Comparison," at pp. 12 and 15:

"The Rankine engine has the potential of having these major advantages over the Otto cycle engine for automobile use: *maintenance* and *reliability*, fuel, economy, low emissions." [Emphasis added.]

TABLE 4.—RELIABILITY COMPARISON OF OTTO AND RANKINE ENGINES

	(V-8) Otto cycle	Steam reciprocator (4 cycle)	Organic reciprocator (4 cycle)	Steam turbine	Organic turbine
Maine bearings	5	5	5	2	2.
Connecting rod and wristpin bearings.	16	8	8	0	0.
Camshaft and rocker arm and pump bearings.	22	13	13	2	2.
Set of rings or equivalent	8	4	4	0	0.
Valves	2 per cycle, cam operated.	1 per cycle mechanically operated, 1 sleeve seal.	Same as steam reciprocator.	Variable nozzle reciprocator.	Variable nozzle
Controls	Throttle control on carburetor (plus automatic control on carburetor, coolant temperature).	Value cutoff, fuel flow pump speed (plus automatic temperature and pressure control).	do	do	Do.
Seals	2 major oil seals	1 major fluid seal	do	Same as steam reciprocator.	Same as steam reciprocator.
Transmissions	Multigear, hydraulically controlled system.	Simple gears	Simple gears	Multigear, hydraulically controlled system.	Do.
Peak metal temperature	1,200° F. plus	1,000° F	700° F	1,000° F	700° F.
Minimum internal steady-	180° F	212° F	150° F	212° F	150° F

TABLE 5.—PARTS NEEDING ADJUSTMENTS OR SERVICING

	Otto cycle	Steam reciprocator	Organic reciprocator	Steam turbine	Organic turbine
Primer mover	Value life	Cutoff value	Gate valve	Cut off valve	Gate valve.
	Valve surfaces				
	Bearings				
Heat addition	Ignition system	Fuel flow control	Same as steam	Fuel flow control	Same as steam
	Carburetor	Valves	Reciprocator	Fluid flow valve	Turbine.
	Carbon cleanout	Igniter	do	Igniter	Do.
	Fuel pump and filter.	Safety valve	do	Safety valve	Do.
Heat rejection	Fan belt	Fan motor	Fan motor	Fan motor	Fan motor.
	Clean radiator	Clean condenser	Clean condenser	Clean condenser	Clean condenser.
	Coolant				
	Water pump				
Transmission	Fluid			Fluid	Fluid.
	Bands			Bands	Bands.
Auxiliaries	Voltage	Voltage	Voltage		
	Lube system	Deaerator	Deaerator	Deaerator	Deaerator.
	Filter	Lube system			
	Oil	Oil			
	Pump	Pump			
	Belt drive	Condensate and boiler feed pump.	Condensate and boiler feed pump.	Condensate and boiler feed pump.	Condensate and boiler feed pump.

[76] Hearings at p. 46.

[77] There have been no cases of vintage steam-car explosions reported, however.

[78] See app. A (Lear letter), where it is reported that the latent energy in the generator at any time is equivalent to a few ounces of gasoline only.

[79] Hearings at p. 112.

[80] See app. A (Lear letter).

[81] For a general discussion see Dr. Ayres testimony hearings at p. 9. But see app. A (Chrysler letter) where this problem is put forth as a main obstacle to Rankine cycle development.

[82] Hearings at p. 28.

[83] Id. at p. 153.

[84] See, e.g., Product Engineering, Nov. 4, 1968, where Wallace L. Minto's freon "steam" engine is discusssed (app. B).

[85] Freon has a freezing point of —68° F., hearings at p. 9, Minto's freon engine will be used in the Dallas steam bus demonstration project funded in part by the DOT. See discussion in text accompanying notes 102 and 103 infra.

[86] Id. at p. 9.

[87] Id. at p. 46.

[88] Id. at p. 79.

[89] See diagram id. at p. 129.

[90] Mr. Minto claims a 3–6 second startup time for his Freon "steam" engine. Product Engineering, Nov. 4, 1968, at p. 56 (app. B).

[91] In the first place California has passed emission standards that will severely test the emission control potential of the internal combustion engine. (AB 357 (1968)). Secondly, the California Highway Patrol will undertake a testing program of Rankine cycle patrol vehicles. See text infra. Third, the California Assembly will supervise a steam bus demonstration project financed in part by the U.S. Department of Transportation. See text infra. Finally, California by legislative mandate will purchase low-emission vehicles for State use. (AB 356 (1968)). See text infra under "Recommendations."

[92] See app. B for copy of California Assembly Resolution No. 111 (1968).

[93] See Ideas, October 1968, p. 5.

[94] See Ideas, February 1969, p. 33 (corroborated by phone conversation with William P. Lear, Feb. 19, 1969).

[95] Initial bidding did not produce satisfactory results and a new request for proposal was distributed to Rankine cycle propulsion system manufacturers. There were four respondents to the second request: Lear Motor Corp.; Thermodynamics Systems, Inc.; Paxve, Inc.; and Berry W. Foster. (See app. B for complete information on the California Highway Patrol's request for proposal.)

[96] Phone conversation with Inspector David S. Luethje, California Highway Patrol, Feb. 25, 1969.

[97] Id.

[98] Id.

[99] See app. A (Lear letter).

[100] The demonstration project is supported under the Department of Transportation's program of research, development, and demonstrations of the Urban Mass Transportation Administration which is aimed at improving mass transportation in all cities across the Nation through the application of new technology. The total cost of the program for 3 years is estimated at $610,000 of which the Federal share will be $450,000. The initial Federal grant is for $244,250 to aid in the purchase, installation, and testing of the engine. The State of California, AC Transit, and San Francisco MUNI will contribute the remaining funds. (See app. B (California steambus proposal.))

[101] Id.

[102] The Dallas project will cost $464,684 of which the Federal grant from the Urban Mass Transportation Administration will be $309,789. The city of Dallas will pay $114,895 of the project's cost with the balance to be provided by LTV Aeronautics Division in services.

This project was not formally presented to the Department of Transportation in the way the California project was, but the Department is to be commended for allocating funds to both these necessary demonstration projects.

[103] See app. B ("Product Engineering—Minto") for a description of Minto's activities in developing engines using Freon.

[104] Any attempt to keep the Rankine vehicle out of competition will be viewed by critics as another automotive industry attempt to stifle progress and perpetuate the status quo. Such an exclusion may, in fact, prompt a congressional inquiry.

[105] See app. A (W. D. Thompson letter).

[106] See app. B, "Critical Comparison Report."

[107] See discussion in text accompanying footnotes 62–67 supra.

[108] See discussion in text accompanying footnotes 73–75 supra.

[109] See discussion in text accompanying footnotes 76–80 supra.

[110] See discussion in text accompanying footnote 86 supra.

[111] See discussion in text accompanying footnotes 81–85 supra.

[112] See discussion in text accompanying footnote 90 supra.

[113] See discussion in text accompanying footnotes 58–60 supra.

[114] See supra, footnote 38.

[115] See app. B ("Critical Comparison Report").

[116] Id.

[117] See discussion in text accompanying footnotes 81–85 supra.

[118] See footnote 73 supra.

[119] See app. A (General Motors letter).

[120] See footnote 71 supra.

[121] See footnote 98 supra.

[122] Thermodynics Systems, Inc., and Kinetics Corp. are among those about to provide operational equipment within a very short time.

[123] Fort Motor Co. will spend a reported $7 million for one emission control research program designed to improve the ICE. A comparable expenditure in the Rankine field would have far greater pollution control impact. (See footnote 130 infra.)

[124] Hearings at pp. 24, 33, and 48.

[125] Hearings at p. 53.

[126] App. A (General Motors letter).

[127] App. A (General Motors letter).

[128] See discussion accompanying footnotes 70 and 71 supra.

[129] App. A (Ford letter).

[130] See hearings at p. 27; see also App. A (Ford letter).

[131] See app. A (Ford letter).

[132] See app. A (Ford letter) and app. B ("Turbine Era Dawns," Automotive News, Feb. 10, 1969, p. 8).

[133] See app. A (Chrysler letter).

[134] See app. A (American Motors letter).

[135] Hearings at p. 25.

[136] Hearings at p. 33:

"Senator MUSKIE. You [Mr. Misch, Ford Motor Co.] make the point, which is very legitimate, that the internal combustion engine has benefited from the contributions of thousands of engineers, scientists, and manufacturing experts over many years. In addition, there is a commitment to the internal combustion engine in terms of investment, and consumer acceptance, and consumer familiarity.

"Doesn't all this, however, add to the momentum of the status quo in a way that may run counter to the public interest?

"Mr. MISCH. Well, it would only run counter to the public interest if we pursued the internal combustion engine and failed to arrive at the satisfactory final position with regard to pollutants."

[137] See discussion in test accompanying footnotes 33–35 supra.

[138] "The Automobile and Air Pollution: A Program for Progress (Part II)," U.S. Department of Commerce (December 1967) at p. 25.

[139] Id.

[140] Hearings at p. 25.

[141] Very few individuals are aware enough or public spirited enough to choose an automobile merely on its pollution qualities. The steam vehicle will have to be competitive in every other way if it is ever to gain wide public acceptance. But competition does not require limitation. The steam vehicle may offer an unusual opportunity to adopt innovative and safer, but still competitive, design characteristics that complement the novel propulsion system. (See e.g., app. A (Lear letter).)

[142] "Automobile and Air Pollution Report (II)," footnote 138 supra at p. 28.

[143] Ideas, February 1969, p. 35. The figures were based on an American Petroleum Institute report.

[144] Hearings at p. 10.

[145] Hearings at pp. 65–66.

It took congressional action to make the auto safer. It took congressional action to get antipollution devices installed in the auto. It will take congressional action to make the air breatheable again by doing something about the major source of air pollution—the internal combusion engine.

It is generally recognized that the automobile represents the most important single source of air pollution in the United States. It currently is responsible for 60 percent of all air pollution in the country and in many urban areas for well over 90 percent. This air pollution is a cause of pulmonary emphysema, chronic bronchitis, lung cancer, genetic mutation, degeneration of pulmonary functions, increased sensitivity of various allergic conditions, accelerations of preexisting heart disease, numerous other kinds of respiratory and circulatory diseases, cancer, and even the common cold.

Even aside from the lethal and safety hazards, the dollar loss resulting from air pollution is staggering. It is estimated at $11 billion a year or $600 per family.

The amendment would not take effect for 9 years. I feel certain that within that period, the industry can come up with a motor which will greatly reduce, if not totally eliminate, pollution emission.

I believe that passage or even a respectable number of votes for it will demonstrate to the automobile producers that the Congress is serious in its desire to do something about automobile-caused air pollution.

The amendment I am today offer-

ing, I originally introduced as H.R. 13225. It would prohibit the manufacture, sale, or transporting into commerce of any new motor vehicle powered by an internal combustion engine manufactured after January 1, 1978 unless the vehicular engine produces a level of exhaust emission of not more than 0.5 gram per mile of reactive hydrocarbons, 11 grams per mile of carbon monoxide, and 0.75 gram per mile of nitrogen.

Mr. BELL of California. Mr. Chairman, will the gentleman yield?

Mr. FARBSTEIN. I yield to the gentleman from California.

Mr. BELL of California. I wish to commend the gentleman for offering his amendment. As the gentleman has stated, and I certainly agree, sometimes we need some kind of hard action in a matter of this kind to move the automobile industry.

Mr. FARBSTEIN. I agree fully with the gentleman from California. That is basically the purpose of my introducing this amendment.

Mr. HECHLER of West Virginia. Mr. Chairman, will the gentleman yield?

Mr. FARBSTEIN. I yield to the gentleman from West Virginia.

Mr. HECHLER of West Virginia. Mr. Chairman, is it not true that a period of only 8 years elapsed between 1961 when President Kennedy announced the goal of landing on the moon and the time when we achieved it in 1969? The gentleman from New York is giving 1 additional year beyond 8, he is giving 9 years for the industry to meet this goal. I wonder if the gentleman feels, if we set a goal like this, it might possibly be the kind of challenge American industry could meet?

Mr. FARBSTEIN. Very frankly I think American industry can meet this prior to that date, but my purpose in using that date was to remove from the industry any suggestion that we are pressing industry to the wall and not giving industry an opportunity to do something about air pollution.

Mr. STAGGERS. Mr. Chairman, will the gentleman yield?

Mr. FARBSTEIN. I yield to the gentleman from West Virginia.

Mr. STAGGERS. Mr. Chairman, I would like to answer the gentleman from West Virginia and say that the Federal Government is not spending $50 billion, or anything near that, to correct this very large danger we have here today, but the Federal Government did spend $50 billion to put a man on the moon, and it took 9 years. If we were to spend that kind of money, we could buy every car in the United States and clean it up and run it on some superfuel. We do not have that much money to spend.

Mr. FARBSTEIN. Mr. Chairman, I would like to tell the chairman of the committee, apropos of what the chairman just said, it seems to me those who are earning not millions but billions of dollars on the production and sale of automobiles are the ones who should assume the responsibility for cleaning up the pollution by manufacturing engines that will not produce the pollution or the smog that is harmful to people.

I do not believe the onus should be on the Federal Government to spend $50 billion, although, of course, I favor the legislation before us today. I do believe the automobile companies should do this, and very frankly, I believe they can do it. They have the technology today. As a matter of fact, different types of fuels can be used by existing engines which greatly reduce pollution. I understand in Florida, for example, a large firm uses natural gas to run its trucks. There are electrical cars, steam cars, and other cars using other fuels. They can be produced

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without contributing further to the smog problem.

Mr. STAGGERS. Mr. Chairman, I rise in opposition to the amendment offered by the gentleman from New York.

The amendment offered by the gentleman is unnecessary. Existing law says the Department may ban new motor vehicles from sale unless they meet the emissions standards set by the Secretary. This requires that the Secretary take into account several factors which were written into the original law. This can be done at any time.

This amendment would instead have the Congress set emission standards, and we are not equipped to do that. This is the kind of a job we created the air pollution agency to handle, and we expect them to do the job with the authority we have given them, which in our opinion is adequate.

Mr. Chairman, I sympathize with the goal of trying to make this subject to the standards set in California, but there are other cities, such as the home town of the gentleman from New York, which have problems. Many different means are used to meet the problem. There are different problems and different air quality standards set in New York from those set in Los Angeles, and those set in Pittsburgh, and in Chicago. Unfortunately, proportionately little money is being put into research programs on automotive pollution. I know a great deal more will have to be done, but we are relying on experts. The Congress is not expert. We cannot say these are going to be the standards. We have left this to the Secretary, who with his team of experts sets the standards, and these standards must be met or the cars cannot be sold in interstate commerce. It is just that simple; that is the law today.

Pollution is an immediate problem for the large cities, we recognize this. The gentleman from Florida made the statement that not enough money is being put into this, and we are telling the agency and the Secretary that Congress feels more money should be put into it, that the standards should be made tougher. They have the authority now. But with respect to the gentleman's amendment, it certainly is not necessary at all.

Mr. HARVEY. Mr. Chairman, I rise in opposition to the amendment.

I wish to join in what the distinguished chairman of the committee has already said. Obviously that authority is already vested.

Also I wish to reply to the gentleman from New York, who has said, I believe, and I quote: "They have the technology today" to do this sort of thing. Dr. Lee DuBridge, who is the President's science adviser, spoke on this very problem just a few days ago and he said that the development of a new automobile engine is a big job, and then he went on to say, and I quote:

> We must depend upon the gasoline engine and its improvements during the next 10 or 20 years.

He went on after that to discuss the problems of air pollution from the automobile, and to point out that progress has been made in this regard.

After hearing some of the talk here in the House, one would get the impression that progress is not going forward. But it is.

Let me point out what Dr. DuBridge said, for example, on progress on the control of hydrocarbons. He said that the control thus far achieved —and I quote again—"has gone from 900 parts per million of hydrocarbons before 1965 to less than 275 parts per million of hydrocarbons today," and that with the introduction of the 1970 models in the auto industry that figure will be reduced to less than

120 parts per million of hydrocarbons.

This, Mr. Chairman, represents a reduction of more than 80 percent being achieved by the industry today. I would say to the House that in my judgment this represents real and substantial progress in attempting to comply with the requirement to meet a very serious and recognized health condition.

In the field of carbon monoxide he went on to point out that more than a 65-percent reduction had already been made in that field. This again I say is substantial evidence of progress in this particular field.

We do not say that more progress cannot be made, but we say they are going ahead just as fast as they possibly can in recognition of a very serious problem.

Mr. STAGGERS. Mr. Chairman, will the gentleman yield?

Mr. HARVEY. I am glad to yield to the gentleman from West Virginia.

Mr. STAGGERS. As the gentleman stated they are making great progress, and have plans for research in the future.

The great and overwhelming amount of this material which is being put in the air now is put there by used cars which are not equipped with the equipment to prevent this from going into the atmosphere. Those are the older cars. The newer ones are meeting the standards as set by the Secretary.

I am sure the cars in California are meeting the standards set by that State. In fact, California is the only State in the Union, out of the 50, that we exempted from the motor vehicle law. We said that the problem is so serious in California they should be permitted to do their own job out there. It is up to the States to do it, because we exempted the State of California, as to going ahead and making higher standards.

The fact is that it is the older cars which are now on the roads which are doing most of the polluting of the air.

Mr. HARVEY. I thank the gentleman.

I want to say to the gentleman from New York that in my judgment to blindly set a date such as 1978 when cars with internal combustion engines can no longer be produced except under these conditions is ridiculous.

The gentleman from West Virginia pointed out that we could go to the moon in less time than that. That may be true, but as Dr. DuBridge pointed out the problem has not yet been solved, the technology does not yet exist to do these things. Nor are we spending the sums of money, as the chairman pointed out, to do these things.

But we are making substantial progress.

I would point out to my colleagues that, yes, I do speak as one who represents a district in which the automobile industry is very important. There are more than 25,000 workers in one city alone in my district who work directly for one company in the auto industry. I would point out to the Members that in this Nation of ours one out of every seven workers' jobs is traceable to the auto industry in some way or another; one out of every seven workers.

I would point out to you that there are more than a million directly employed by the industry itself, not to mention the dealers, the suppliers, and all of their employees. I point out to you that the net sales of autos last year came to over $19 billion and that out of our balance of payments more than $1 billion came from the sale of autos alone. So I say to you that the industry has significance. You can knock it all you want to and say that it is not doing a good enough job in getting rid of air pollution. But this industry means an awful lot

to an awful lot of people in America, and I would consider that very carefully before we tamper with writing standards that would affect it on the floor of this House.

Thus far we in our committee, although we have held lengthy hearings on the entire matter, have never seen fit to write in standards neither in auto safety, toy safety, or air pollution devices. We do not claim to have that sort of expertise and, as a result, we have instead given the authority in all cases to the Secretary, or someone in the administration. Never have we written such standards. This is precisely what this amendment would do, and that is why I ask it be defeated.

The CHAIRMAN. The time of the gentleman from Michigan has expired.

Mr. BROWN of California. Mr. Chairman, I rise in support of the amendment offered by the gentleman from New York.

(Mr. BROWN of California asked and was given permission to revise and extend his remarks.)

Mr. BELL of California. Mr. Chairman, will the gentleman yield?

Mr. BROWN of California. I will be happy to yield to the gentleman from California.

Mr. BELL of California. Mr. Chairman, I recognize that the gentleman from Michigan spoke very ably on this subject but I wish to point out that sometimes necessity is the mother of invention.

The gentleman spoke to some extent about the Space Committee and our space efforts. I might point out that we discovered in that committee at various times, as the gentleman from California knows, that by setting a time and a place where we could obtain certain results in the way of space efforts we could accomplish a great deal. When we did set these times and places the people involved said that they could not meet the goals but when all was said and done they made an all-out effort and did meet our time limitation.

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The point of the gentleman's amendment is to establish a time limit and therefore mandate this all-out effort. I believe that we in the House would be surprised at the amount of achievement that the auto industry could obtain in this field.

Mr. BROWN of California. Mr. Chairman, I want to thank the gentleman from California [Mr. BELL], very much for those comments, because I know he is both intimately acquainted with the space industry as well as the petroleum industry, which is, of course, an important part of the automobile industry, and his remarks have particular significance because of that.

Mr. Chairman, I am not at all impressed with the remarks of the gentlemen who have spoken with regard to the fact that the present laws are adequate and that progress has been good in this field and that it is only the old cars that are polluting the atmosphere and so forth. In my opinion, with all due respect to the good judgment and intent of the speakers, they are in every case completely wrong.

Mr. STAGGERS. Mr. Chairman, will the gentleman yield?

Mr. BROWN of California. I am glad to yield to the chairman of the committee.

Mr. STAGGERS. In California do you not have the authority to set up standards of yuor own

Mr. BROWN of California. Yes, we do.

Mr. STAGGERS. Then, is your automotive pollution problem the fault of the California Legislature or this Congress?

Mr. BROWN of California. I am not sure I understand your question.

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Mr. STAGGERS. If you have the problem, then if you have the authority to do something about it would it be the fault of the California Legislature or this Congress?

Mr. BROWN of California. Insofar as the State of California has the right to set a standard, it is certainly no fault of this Congress that they have not set more stringent standards.

Mr. HARVEY. Mr. Chairman, will the gentleman yield to me?

Mr. BROWN of California. Yes. I yield to the gentleman.

Mr. HARVEY. Has the State of California done anything with regard to setting standards for used cars? It is my understanding they have not.

Mr. BROWN of California. Only in a very limited way, with regard to certain blow-by devices, but they have not applied the same stringent standards there as they have to new cars.

Mr. HARVEY. They have not. If I understood the gentleman from California who spoke earlier, he pointed out that 18 percent of the pollution today is coming from used cars and that the State has done nothing about it.

Mr. BROWN of California. With regard to this term of 18 percent of pollution coming from used cars, this whole concept has to be modified in the light of the definition of pollution.

Essentially, what we are talking about in terms of present standards with reference to pollution apply to hydrocarbons and no standards have been set to the best of my knowledge —and I stand corrected if that statement is not true—with respect to the more serious problem of nitrogen oxides and lead, for example, both of which are critical ingredients in the poisonous smog which exists in Los Angeles and in other parts of California as well as other parts of the United States.

We have not actually begun to grapple with the most serious aspects of the pollution problem. We are talking about it only from the standpoint of the emission of hydrocarbons. We have made some progress in that field but we have made little or no progress in controlling these other more serious elements of pollution. This is what I refer to with regard to the remarks that it is only the old cars that are polluting the air. It is the old cars as well as the new cars which are contributing to this pollution situation.

Mr. HARVEY. Mr. Chairman, will the gentleman yield?

Mr. BROWN of California. I yield to the gentleman from Michigan.

Mr. HARVEY, I did not say it was only the old cars that were doing the polluting. I pointed out the fact that they had reduced hydrocarbon pollution by 80 percent and carbon monoxide by 65 percent. But, certainly, there is still pollution coming from new cars. However, there is more pollution coming from old cars.

Mr. BROWN of California. The gentleman from Michigan is correct insofar as he has gone here. What I am trying to do here is to point out the fact that hydrocarbon pollution is probably the least serious element of the total pollution problem. Insofar as the emissions from internal combustion engines is concerned I think we are speaking basically of only hydrocarbons and not the pollution from other elements, when we say progress is being made.

The CHAIRMAN. The time of the gentleman from California has expired.

(By unanimous consent, Mr. BROWN of California was allowed to proceed for 5 additional minutes.)

Mr. BROWN of California. Now, Mr. Chairman, I have been deeply concerned about this problem for, roughly, 15 years. It was at least 15 years ago that I became involved in efforts to control pollution in Los

Angeles. As a local government official at that time I was told then that it could be done with the effort we were then devoting to research, and that progress was good. However, what has happened? Essentially nothing. Smog today in Los Angeles is worse than it was 15 years ago. There is no question about that. Yet, all the time we have been told that the automobile industry is doing everything possible to correct the situation.

Then, Mr. Chairman, as a member of the State legislature I conducted hearings 10 years ago—hearings on the problem of smog and more particularly lead and its contamination of the atmosphere. We had before that committee the best possible witnesses that the petroleum industry could produce at that time. The reaction I had after the hearing was that not only was my concern with regard to lead in the atmosphere unecessary, but actually the more lead put into the atmosphere the healthier it was for the people of the area. The experts have the statistics to prove it. Of course, it does not take a very intelligent person to know that lead is a cumulative poison and that the more there is in the atmosphere the worse it is for the people.

I think industries which are concerned with the production of lead—and it is a very big industry, at least one quarter of a billion dollars a year—will state that it is unnecessary to control the emission of lead and, in effect, that the more you ingest the better it is for you. However, I am not sold on the proposition that progress is being made because in my opinion the exact opposite is true.

The gentleman from Michigan has made reference to what we have done with regard to a lunar landing in recent years. I can understand the simple logic of the gentleman from New York in offering this amendment and in placing the time for the correction of this problem into a period roughly equal to what it took us to reach the moon.

The cost of this lunar operation was not $50 billion, but was essentially $25 billion from the time that the goal was set until the time it was achieved. It has been pointed out how large and important the automobile industry is, and this is very true. The very size of that industry makes it possible for the industry at the expenditure of perhaps $10 per unit sold, for example, to have a fund of $400 million a year for research. Yet they have not begun to do this.

At much less than the cost of the new model changeover each year, which runs to something like $4 or $5 billion a year, they could have produced a completely redesigned automobile which would not pollute the atmosphere. At the price of 1 cent per gallon of gasoline sold they could have a fund of a quarter of a billion dollars per year for researching into how to eliminate pollution.

Have we seen the automobile industry or the petroleum industry offer to de these things? Absolutely not.

What we have seen—and I have pointed it out in the letter to the Attorney General, and I made reference to it yesterday in the RECORD—is that the automobile companies and the manufacturers' association are now the subject of an antitrust suit because they have failed to take any action with regard to the question to avoid doing anything about con- They have actually conspired over the last 10 years, according to the complaint of the Justice Department, to avoid doing anything about controlling this problem.

Hence I believe that the only practical thing to do is that which was suggested by the amendment offered by the gentleman from New York—which I frankly consider to be too moderate—and that we should, if anything,

cut off completely the manufacture of automobiles with internal combustion engines, probably within 3 years. Given that stimulus, and given the vast resources which these companies possess, I have no doubt but what they could find a solution to

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this problem. I have no doubt but what they could find a solution. And the argument that we should not tamper with the automobile industry because one person out of every six in this country is engaged in the business just does not appeal to me. What if one person in every six were engaged in the sale of heroin in this country? Would you agree that we should do nothing about heroin either? I doubt that very seriously. And yet, in view of the adverse impact of automobile air pollution upon this country, there is no question whatsoever but what the automobile industry and the petroleum industry and the poisons which they are emitting into the atmosphere are having a far worse effect upon the health of our country than heroin is. And that will continue to be the result of these emissions as they continue to concentrate in the atmosphere, because we refuse to control an $80 billion-per year industry in this country.

I say that the time has come for this Congress to do something about this. Again I compliment the gentleman from New York for his amendment.

Mr. PUCINSKI. Mr. Chairman, I move to strike the requisite number of words.

Mr. Chairman, I rise in support of the amendment.

Mr. Chairman, I was very much impressed by the argument of the gentleman from California, and the other arguments in support of this amendment. During the recess I had occasion to do some flying around Chicago, and one does not really appreciate the immense dimensions of our air pollution until one gets above the ground and until you can take a look at these large industrial centers.

In doing this flying it struck me very forcibly that people are breathing this filth. When we look through these reports and look through the testimony we are overwhelmed at all sorts of statistics about what great progress is being made when the fact of the matter is, as the gentleman just stated a moment ago, that in Los Angeles the pollution and smog are worse today than they were 15 years ago.

Until we can get a total commitment to deal with this problem of air pollution, unless we have a national total commitment that we are going to destroy air pollution, it will destroy us, and you know it and I know it.

We talk about our space program. On the day that these great Americans walked upon the surface of the moon, all of us here in this Chamber talked about it. At that time I said that it demonstrates what a nation can do, and it demonstrates what mankind can do if he has a total commitment.

This amendment gives the auto industry 8 years, but it does give us a total commitment to do something about the largest contributor toward air pollution.

I ask the Members to come to my district and stand near O'Hare Field, and you will see the real ravages of air pollution. Every day you can see 2,500 landings and takeoffs from O'Hare Field—with each one of these jet aircraft emitting a long stream of black kerosene smoke over my whole district.

Gentlemen, we have an opportunity today to make a significant move. I know it is not a popular one necessarily. I know there are those who are going to argue very effectively against

it, but this resolution will serve notice that there is a total commitment by this Congress to do something significant about air pollution. I would hope that this amendment would be adopted.

I know it is a severe measure. I know there will great outcries of anguish against it. But the fact of the matter is that the time has come when this legislative body has to start engaging in total commitments. We are talking here about air pollution. I believe if we will follow that doctrine of total commitment that we can do something about this problem. Otherwise, we will be back here next year or the year after that and we are going to be overwhelmed by more statistics about all the things that need to be done.

The fact of the matter is that you have people in the rural areas and in the urban areas such as mine who are continuing to breathe this filth in ever-increasing numbers. It seems to me this is a logical approach. The Congress always has the opportunity to work its will. If after 3 or 4 or 5 years we do see that there is real significant progress being made, the Congress can always repeal this amendment. What the Congress does—it can undo with the same expedition.

But I say to you, this amendment today would serve notice on the manufacturers that they have 8 years—and that is all—8 years in which to do something about this problem or they will be out of business. It is going to take that kind of severe action by the legislative branch of the Government to get this job done.

Mr. STAGGERS. Mr. Chairman, will the gentleman yield?

Mr. PUCINSKI. I yield to the gentleman from West Virginia, the chairman of this committee, for whom I have great respect and who I think is doing a magnificent job on this committee.

Mr. STAGGERS. I thank the gentleman for yielding and for his comments.

Does the gentleman agree that the Secretary now has the right to ban any new motor vehicles if they do not meet certain standards?

Mr. PUCINSKI. Yes, I do, Mr. Chairman, but I want to tell you that one thing that has been my greatest single disappointment in my 10 years of service in this legislative body is the extent to which special interests and vested interests affect every move of this Government.

So while the Secretary does have powers, and there is no question about it, the fact of the matter is that these people come in here screaming about an $80 billion industry and every time that somebody wants to move in a positive way and a forward direction, he gets boxed in and locked in by the special interests.

Mr. STAGGERS. The gentleman from Illinois says then that the Secretary does have the power, but yet you are still not going to let him set the standards—because the Congress is not expert and cannot set the standards. We in Congress have no agency and no body of experts—no one. So they have to set the standards and they do have that right at the present time.

I say, for that reason, it is good to bring this to the attention of the Congress and to an agency, but you are duplicating the Secretary's powers that he does have today and he would only have to carry them out.

Mr. PUCINSKI. In reply to the very eloquent statement made by the chairman, the gentleman from West Virginia [Mr. STAGGERS], of course, this Congress is not equipped to cross every "t" and dot every "i" and we have to delegate to the administrators of these bills the promulgation of rules and regulations and standards.

But I must tell you in all honesty

and sincerity that I have lost faith I have lost confidence in some of these administrators. This is a Government of three coequal branches and I consider this legislative body a coequal branch of our Government. So I stand here on my own two feet today and I feel capable and I hope that every other Member of this Chamber can stand here and feel capable of making a decision as a legislator to say that after 8 years there shall be no more manufacturing of engines that lead to the sort of filth that is killing our cities. I think I am capable of making that decision. I do not ask the Congress to cross every "t" or dot every "i" but basically on a fundamental policy decision, I do not intend to abdicate my responsibility to some bureaucrat down range who makes these decisions that are totally unresponsive to the needs of the people in our districts. I will make that decision and that is why I support this amendment.

Mr. FARBSTEIN. Mr. Chairman, will the gentleman yield?

Mr. PUCINSKI. I yield to the gentleman from New York, the author of the amendment.

Mr. FARBSTEIN. I just want to state that we are not setting the standards. The standards that I put in my amendment are the standards set by the State of California in the purchase of their vehicles. That is all that I do.

We would not be putting them out of business—all we would say to the producers of automobiles is, "You manufacture engines that will not emit any more hydrocarbons or whatever it is that causes air pollution greater than the standards set by the State of California in their purchase of automobiles."

That is all I seek to do by my amendment.

Mr. WAGGONNER. Mr. Chairman, will the gentleman yield?

Mr. PUCINSKI. I yield to the gentleman.

Mr. WAGGONNER. The gentleman talks eloquently about total commitment and the problem of getting rid of pollution. Is the gentleman ready to say that we will not allow the cities to utilize coal or fuel oil for heating pur-

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poses because there is pollution that comes from their use?

The CHAIRMAN. The time of the gentleman from Illinois has expired.

(On request of Mr. WAGGONNER, and by unanimous consent, Mr. PUCINSKI was allowed to proceed for 2 additional minutes.)

Mr. WAGGONNER. If the gentleman will yield further, is the gentleman willing to take that position?

Mr. PUCINSKI. Yes. In fact, in Chicago the Commonwealth Edison Co. right now is undertaking a multimillion-dollar conversion from coal to other means of providing fuel to generate electricity for that very reason. I support every one of those moves. I support every single move. In fact I am perfectly willing to make sure our own garbage disposal plants are forced to use whatever methods are possible to eliminate pollution.

Mr. WAGGONNER. Has the gentleman checked with Consolidated Edison to see how long it would take them to convert the total heating requirements in the city of Chicago, where he lives, so that no longer will fuel oil or any other fuel which causes pollution be used? Would it not be wise to know before we start drawing deadlines?

Mr. PUCINSKI. The fact is that the Edison Co. is now—not 1 year from now, not 2 years from now, not

5 years from now—now—in the process of conversion because they realize the problem of pollution. So all the gentleman here says is that we are serving notice. Now, in 5 years, 3 years, or 2 years, if we can find that these statistics are meaningful, if indeed there is an appreciable decrease in pollutants, I will be the first one to stand here and argue for the repeal of this amendment.

Mr. WAGGONNER. Before the gentleman argues this, rather than using the word "if," would it not be better to know?

Mr. PUCINSKI. The fact is my friend knows that we have talked about pollution, and we passed the original act that held out hope for mankind. Look at the progress that has been made.

Mr. WAGGONNER. This is a statement that the Congress always makes. We hold up some new token legislation as a program that will produce an ideal situation. The gentleman from California [Mr. BROWN] who preceded the gentleman from Illinois, talked as you do about getting rid of pollution. Upon finishing his eloquent remarks, he walked over to the rail where he lit up a cigar that has now polluted this Chamber, and there is more smoke in here than there was to begin with. In the interest of getting rid of pollution, I would suggest that the gentleman pay attention and look at the smoke his cigar is giving off now. Yes, the situation can be improved but total accomplishment is a dream. We must as we move forward be practical. This amendment is not practical.

Mr. SPRINGER. Mr. Chairman, I move to strike the last word. I would like to address my remarks to the very able gentleman from Illinois [Mr. PUCINSKI]. The greatest source of pollutants, as I understand, in your congressional district, is the airplane. The largest airport in the world is located either in your district or at the edge of it. Is that correct?

Mr. PUCINSKI. That is correct.

Mr. SPRINGER. That is the greatest source of pollutants that you have.

Mr. PUCINSKI. Yes, sir.

Mr. SPRINGER. All you have to do is to have a resolution in legal form passed by the Cook County Board of Commissioners saying that no airplane can land in Cook County until the engines of those airplanes reach a certain rate of emission. That will solve your problem entirely. So it is within the ability of the board of commissioners of Cook County to resolve the question entirely, may I say, to the gentleman's satisfaction.

Mr. PUCINSKI. Mr. Chairman, will my colleague yield?

Mr. SPRINGER. I yield to the gentleman from Illinois.

Mr. PUCINSKI. I am sure the gentleman realizes that this is an unacceptable alternative. No one has seriously suggested we close down O'Hare. But I will tell you what one alternative is, and I am trying to pursue it. I am suggesting to the city of Chicago that it file an injunction suit against the airlines to bar them from polluting the air with their engine emissions. I want to get this matter into court. The court will then set a cutoff period, after which these airplanes will have to comply with our air pollution standards or be barred from further operation. I do not know how many years it would be, but the court would set a reasonable date when they have to retrofit their aircraft with nonpolluting engines. Pratt Whitney has developed an engine that does not pollute the air. The only thing is that the airlines have been

dragging their feet on retrofitting their aircraft with these new engines.

The tax reform bill that we passed before the recess—and which is now before the Senate Finance Committee, would give the airlines an incentive to make the change because it provides a faster writeoff through depreciation of antipollution engines. Perhaps that will do the trick. I do not know. But I am trying to get this whole matter into the courts, where the courts will set the date for an end to air pollution by aircraft, as this Congress is now being asked to set a date for an end to pollution by automobiles. I am sure the court will set a reasonable date when it realizes the extent of pollution presently caused by the airlines.

There is no reason why the airlines should not be compelled to observe the same antipollution regulations that we impose on all other industry. I believe we should seek the same kind of injunctive relief as the city of Newark is seeking through an injunction against the airlines.

I want to make it clear I am not trying to prohibit aircraft operation. I merely want to seek a court order which would set a reasonable date to compel the airlines to install pollution-free engines in their planes. The tax reform bill permits them to recapture their investment through an accelerated depreciation in 5 years instead of the usual 15 years. With this kind of an incentive, there is no reason why the airlines should not be compelled to retrofit in a reasonable time.

Mr. SPRINGER. I am suggesting that the gentleman has an easy alternative that can be done in 30 days.

Mr. KOCH, Mr. Chairman, I rise in support of the amendment offered by the gentleman from New York [Mr. FARBSTEIN]. I concur with the statements made by the gentleman from California [Mr. BROWN] and others who have spoken in favor of this amendment.

I want to point out some additional facts to the Member. It is not possible to close down the Chicago airport because there have already been cases on that, and it has been decided that is a Federal responsibility and no locality can impose its will with respect to aviation standards. That is why we cannot do that in New York and that is why it cannot be done any place else. We have tried it in New York. So it is the obligation of this Congress if we are to get air pollution standards affecting the aviation industry.

What distresses me most is to have a scientist like Dr. DuBridge saying it will be 21 years before we can have a nonpolluting automobile engine. That simply is not acceptable.

I know industry will never do anything in the area of public safety unless it has the carrot and the stick —the carrot, which is the money to do the research and the stick, which is the law, the law to compel them to do it.

The automobile industry did not move in the area of safety until Ralph Nader spoke up and this Congress ultimately passed laws on the subject. The industry does not do it because of the goodness of its heart; indeed industry fought the safety standards every step of the way.

Similarly, the tobacco industry, when the bill regulating its commercials was before this House not very long ago, fought every step of the way, and we unfortunately yielded to them. It is only because of the action of the other body that the cigarette industry has given up the fight with respect to radio and television advertising. Remember how they said it would be terrible? Now they have done it voluntarily—again under pressure.

Similarly, the automobile industry yielded and has met the deadline on safety, and again they did it under pressure.

This country loses hundreds of millions of dollars every year because of air pollution. It costs more and more money. More important it also costs in human health. There are people whose lives are shorter today, not just because of pollution caused by the automobile industry, but by pollution generally, by the electric companies, and by cigarette smoking, and by all the other things we hear about, and the industries fight every attempt to safeguard the health of the public.

Do we just say to our citizens they are unimportant? Professor DuBridge says, not that they are unimportant, but he says we should wait 21 years before we abolish the condition. The President of the United States, in one of his most uninspired speeches, concurred.

I think if we had the commitment and

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provided the resources, and if we set a date of 3 years or 8 years or whatever the number of years, the automobile industry, if it were under the gun of law, would find the way to do it.

I say if we are going to have a better America and have cleaner cities, we will have to make them more habitable. Some of the scientists have said that some of our cities will be uninhabitable by 1990. We cannot wait until 1990 to remove the causes of air pollution. We can do something meaningful now with the passage of this amendment.

Mr. ROGERS of Florida. Mr. Chairman, will the gentleman yield?

Mr. KOCH. I yield to the gentleman from Florida.

Mr. ROGERS of Florida. Mr. Chairman, I know the gentleman from New York is concerned. I presume he is also concerned, as are others who have talked about this, with the automobile deaths at the rate of 50,000 to 55,000 per year, plus all the injuries, and so on, but I have not seen any amendments to say we are going to ban the automobile. This is the approach the gentleman is using. Rather than ban the auto, the Congress has been trying to do something about safety.

Mr. KOCH. Mr. Chairman, if I may respond to that, those people who cause deaths by automobiles are punished for negligence civilly or with criminal action. There is a law against drunken driving. There does not happen to be a law against pollution which is severe enough to do the job.

Mr. ROGERS of Florida. If there is a drunken driver, of course, he is punished, but we do not simply go about it by abolishing the vehicle, because it contributes too much to our society.

Mr. KOCH. The gentleman is absolutely correct, and we are not suggesting we get rid of the automobile but we are suggesting the automobile should be measurably improved.

Mr. ROGERS of Florida. Mr. Chairman, if the gentleman will permit me, the gentleman is saying there should be no automobiles by a certain date. The gentleman is saying they are banned. I do not think the gentleman really wants to take that approach.

Mr. KOCH. Mr. Chairman, I accept what the gentleman is saying in the spirit in which he says it, but the gentleman is in error in interpreting what I am saying. I am not saying that there should not be any automobiles, but I am saying there should not be any internal- or external-combustion engines which do not meet

non-air-pollution standards. I am saying if the art is not presently available to make the engine nonpolluting that we give the industry a time limit in which to do this. Frankly, I believe the technology is presently available. We have gone to the moon in less than 10 years, and many people thought we could not do it. We did it because we had the commitment and provided the funds. I guarantee if we say Detroit must do this in this time schedule, the manufacturers will find the way and do it.

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Mr. OTTINGER. Mr. Chairman, I rise in support of the amendment. The people of this country, and particularly in the metropolitan areas, run great danger of being strangled today from the air pollution that we are throwing into our atmosphere. It amounts now to some 133 million tons of particulate pollution per year. That is almost double our annual production of iron and steel in this country.

A large majority of that pollution is produced by the internal combustion engine.

Scientists with whom I have consulted concerning the electric car and the steamcar say that these means of propelling vehicles are within just a very few years of becoming both economically and technologically feasible. Last year I was privileged to offer an amendment to the Clean Air Act that would have promoted production of such vehicles.

The automobile companies in this country, on the other hand, have such a tremendous commitment to the existing mode of propulsion that they show no real inclination to do the research and to put forth the effort necessary to effect a transition.

This amendment would put them on notice that the Congress is really serious about doing something about a condition which is threatening the health of the people of this country.

I praise my colleague from New York [Mr. FARBSTEIN] for offering this amendment and urge its adoption.

The CHAIRMAN. The Chair recognizes the gentleman from Florida [Mr. ROGERS].

Mr. ROGERS of Florida. Mr. Chairman, I oppose very strongly the amendment, and I think that anyone who takes the time to read the amendment will oppose it. Everybody wants to try to stop pollution, but the committee has gone into this problem very carefully, and has reported a very effective bill to the House.

In effect, what the gentleman would do, although he says he would ban automobiles in 1978, he is simply turning over to the State of California the setting of standards. Right now we have set up in the bill the fact that the Secretary of Health, Education, and Welfare must set standards. If we set specific standards in a bill this then becomes a goal. I do not believe we want to do that, because I believe we want to do better, and we ought not to say that the standards proposed in this amendment are all that Congress wants to accomplish. We may want to do better than .75 gram per mile of oxides of nitrogen, which is specifically set forth in the amendment, or .11 gram per mile of carbon monoxide, or .5 gram per mile of reactive hydrocarbon. That is simply setting up California's present standards. We had better be looking toward the future, and not set pollution controls on a standard of the past.

Mr. Chairman, I hope this amendment will be soundly defeated, as it should be.

The CHAIRMAN. The Chair recognizes the gentleman from Michigan [Mr. RIEGLE].

Mr. RIEGLE. Mr. Chairman, I rise in opposition to the amendment, and

I wish to associate myself with the earlier remarks of my colleague from Michigan [Mr. HARVEY].

I understand the concern of those who wish to reduce air pollution, and I share that concern. Certainly it is a pressing national issue.

I hope that we are going to be able to control this problem, and that industry, generally, will beat the suggested timetable proposed in this amendment.

But as the Chairman suggests, the Secretary of Health, Education, and Welfare has the power now to establish whatever emission standards he determines to be in the national interest.

This amendment does nothing to add to the body of expert knowledge now available to the Secretary of Health, Education, and Welfare. Further, beneath the Federal level, State and local authorities have the right to establish emission standards at whatever level they deem appropriate in their particular environments.

It is a well-intentioned amendment, but it is blind in its impact in that it presumes events 8 years into the future. Such a move is really a poor substitute for careful administrative decisions by the experts on this problem.

So I urge the defeat of this amendment.

The CHAIRMAN. The Chair recognizes the gentleman from California [Mr. BURTON].

Mr. BURTON of California. Mr. Chairman, I ask unanimous consent to proceed out of the regular order.

The CHAIRMAN. Is there objection to the request of the gentleman from California?

Mr. HALL. Mr. Chairman, I object.

The CHAIRMAN. Objection is heard.

The Chair recognizes the gentleman from Ohio [Mr. MILLER].

Mr. MILLER of Ohio. Mr. Chairman, I take this time because I am not positive that we know exactly what we are doing. I understand that in the beginning the amendment was not read, so I ask unanimous consent at this time that the amendment be read.

The CHAIRMAN. Is there objection to the request of the gentleman from Ohio [Mr. MILLER]?

PARLIAMENTARY INQUIRIES

Mr. WAGGONNER. Mr. Chairman, a parliamentary inquiry.

The CHAIRMAN. The gentleman will state the parliamentary inquiry.

Mr. WAGGONNER. Mr. Chairman, will the gentleman state his unanimous consent request again please?

Mr. MILLER of Ohio. I understand that the amendment in the beginning was not read. I am not positive that I understand exactly what the amendment consists of from some of the remarks that have been made on the floor and I believe we should have the amendment read.

Mr. PUCHINSKI. Mr. Chairman, a parliamentary inquiry.

The CHAIRMAN. The gentleman will state the parliamentary inquiry.

Mr. PUCINSKI. Mr. Chairman, am I to understand that if the amendment is read, it will come out of the total time allotted before debate closes, and if the answer is "Yes," then I will have to object and we can have the amendment read after we have consumed the time agreed to for debate.

The CHAIRMAN. The time will not come out of the time limitation.

Mr. PUCINSKI. I thank the Chairman.

The CHAIRMAN. Is there objection to the request of the gentleman from Ohio [Mr. MILLER]?

There was no objection.

The CHAIRMAN. The Clerk will read the amendment.

The Clerk read the amendment.

The CHAIRMAN. The gentleman from Ohio has 1 minute remaining.

Mr. MILLER of Ohio. Mr. Chairman, earlier today the gentleman from Illinois made a comment about the air pollution around O'Hare Field at Chicago. Now I would like to ask the author, will this amendment have anything to do with the control of jet engines?

Mr. FARBSTEIN. No, it does not concern such vehicles or jet engines in airplanes. The purpose of the amendment is concerning automobiles only.

Mr. MILLER of Ohio. Strictly automobiles? Are there plans for any limitations of time as to when jet engines would be restricted?

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Mr. FARBSTEIN. Let us be successful with this amendment and if we are successful with this amendment, then we can start to operate on the others.

Mr. MILLER of Ohio. The subject of jet engines seemed to take up a lot of our time this afternoon and that is why I wanted to make it clear whether we are talking of automobile engines or jet airplane engines.

Mr. PUCINSKI. Mr. Chairman, will the gentleman yield?

Mr. MILLER of Ohio. I yield to the gentleman.

Mr. PUCINSKI. Mr. Chairman, in my discussion I referred to airplane engine pollution in the context of the total problem of pollution and I was not suggesting in any way that that would be affected by this amendment.

Mr. MILLER of Ohio. I thank the gentleman.

The CHAIRMAN. The Chair recognizes the gentleman from Illinois.

Mr. PUCINSKI. Mr. Chairman, since reason gained dominance over instinct, man has become the most destructive of all living creatures.

This whole problem of pollution is a manmade problem. The problem of fumes being emitted by automobiles is not a new problem. But there is no question that the automobile today is the most serious of all polluters in this country, simply because there are more of those particular vehicles in the country than any other polluter.

We can always repeal this amendment. I call my colleagues' attention to section C of the amendment that was just read. It does not bar the production or manufacture of engines. It does not mean, as has been suggested here, that in 8 years there will be no more automobiles in the country. Not at all. All this amendment does is to say to the automobile manufacturers and the engine manufacturers that this House has voted a total commitment to deal with this problem, and we are giving them 8 years in which to do it. We are giving them 8 years to bring down the amount of pollution that they emit to meet the acceptable standards.

I honestly do not see how any well-meaning Member can vote against this amendment. It is a necessary amendment. It does not put them out of business tomorrow. This House can always repeal the amendment if indeed they meet this target before the 8 years. So I hope the amendment is agreed to.

The CHAIRMAN. The Chair recognizes the gentleman from New York [Mr. FARBSTEIN].

Mr. FARBSTEIN. Mr. Chairman, for almost 75 years the automobile producers have been refining the internal combustion engine, and what have we gotten after 75 years? A vast increase in the level of air pollution, particularly in our largest urban areas, has been the result; and with it disease and death. As far as I am concerned one life is worth more than the entire automobile industry. Unless we force them to make the

necessary changes in their automobiles—for which the technology now exists—nothing is going to be done in the next 75 years.

We hear pious statements to the effect that they are making advances in curing the situation. Seventy-five years is certainly long enough to wait. We see what the result has been. Are we going to wait for the sitution to reach the severity of a Tokyo? This may surprise you. They have oxygen tents on street corners in Tokyo. Otherwise automobile operators could not keep on driving.

In Los Angeles they tell teachers not to permit the children to exercise outside on certain days when there is smog, and over 90 percent of that smog is produced by internal combustion engines. We have the technology and the means to manufacture automobiles which do not emit, or at least greatly decrease the level of pollutants in the air.

The CHAIRMAN. The Chair recognizes the gentleman from Ohio [Mr. FEIGHAN].

Mr. FEIGHAN. Mr. Chairman, I support H.R. 12085, which is of major significance in our commitment to improve the condition of air in our cities. The bill would extend the provisions of the existing act, paving the way for further research and development in the control of pollution resulting from the combustion of fuels.

Although technical advances have been made in this area, if, as is likely, motor vehicle registrations continue to increase, the blight caused by fuel combustion will become uncontrollable. At this time, driving an automobile 25 miles at a moderate speed uses up more breatheable air than 7,000,000 people will use in the same period of time. One meteorologist has gone so far as to predict that by the year 2025, the air will be so polluted that we will all die of asphyxiation. While one may readily look askance at the degree of these kinds of predictions, there is an alarm sounded. We are called to action now to avoid an even more serious problem in the future.

As brought out in the committee hearings, the automobile industry has no economic incentives to conduct the necessary research in the area of emission-free automobiles. Consequently, persons outside the industry must be encouraged through adequate financial support to carry on the sorely needed business of making the air breatheable. In the past, there simply have not been sufficient moneys appropriated for research in this specific cause of pollution, even though it is the source of 60 percent of the problem.

All levels of government are involved in the control of air pollution, but the Federal Government must take the lead. Extending the program of research through H.R. 12085 will give State and local governments added tools to aid in following through with their enforcement programs.

The well-being of our Nation depends on our continuing commitment to clean air for our cities. Therefore, I urge my colleagues to support this most worthy legislation.

The CHAIRMAN. The Chair recognizes the gentleman from West Virginia [Mr. STAGGERS].

Mr. STAGGERS. Mr. Chairman and Members of the House, I rise again to oppose this amendment. I say that the amendment is completely unnecessary. It is covered by the law now. I sympathize with these gentlemen who are trying to bring this matter to the forefront, but we have other problems besides the automobile. In Chicago we have talked about the airplane and the pollutants in the air resulting from the airplane, but a major problem in that city is sulfur

oxides that come from the steel industry to a great extent.

In New York City their municipal incinerators are the greatest contaminators of the city. In Houston, Tex., the chemicals emitted by industry in that city are the greatest cause of danger. So we have different problems all over the country. We do not have only one thing that we must attack. We must go about it in an overall effort, and that is why we are trying to extend the time for research under this bill.

I say the amendment is completely unnecessary. I know the gentleman from New York is sincere in what he is trying to do. He has always been a great Member of the Congress, and has always tried to be helpful.

I am sure if the gentleman understood and knew the law as it is now written, he would understand the amendment is completely unnecessary to this legislation.

(Mr. DON H. CLAUSEN asked and was given permission to extend his remarks at this point in the RECORD.)

Mr. DON H. CLAUSEN. Mr. Chairman, I take this time to express my support for extending section 104 of the Clean Air Act which would provide for 1 additional year of research and development in the prevention and control of air pollution.

As my colleagues are well aware, we, in California, have experienced unique problems with regard to smog and air pollution in general. As a result, our State has taken the initiative to develop and implement what I believe is a very unique and far-reaching clean air program that Governor Reagan and Senator MURPHY, in particular, have worked very hard to advance.

The California plan is basically designed to help alleviate the serious smog problem in the Los Angeles Basin and to prevent future air pollution problems in other areas of the State.

One of my primary concerns with this legislation has been to insure that nothing in it will limit or inhibit California's on-going efforts in this regard and I have been assured by several of my colleagues on the Interstate and Foreign Commerce Committee that nothing in this bill will adversely affect the California clean air program.

But, as we all recognize, pollution is a very serious and compelling national problem and there is much that remains to be learned about its actual causes, effects, and methods of prevention and control. In the final analysis, this knowledge can only be gained through further extensive research and development.

Certainly, favorable action on this legislation would have the effect of reaffirming and reinforcing the Federal Government's commitment toward a

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fully successful effort to restore clean air to the Nation's cities and towns.

The Federal Government, however, cannot and should not be expected to assume total responsibility for combating air pollution. In this regard, it is section 104 of the Clean Air Act which most clearly spells out the need for comprehensive involvement of the private sector in the never-ending search for solutions to these problems.

(Mr. PICKLE asked and was given permission to extend his remarks at this point in the RECORD.)

Mr. PICKLE. Mr. Chairman, I rise in strong support of this bill. The research and development in the area of improved methods to control the air pollution resulting from combustible fuels is as important an any matter our Government is acting on today.

The amendment which the gentleman from New York has offered to prevent the manufacture of any combustible engines within 10 years time is startling to say the least. I think we all recognize that it is offered more for sensational reasons rather than for serious hopes of passage. At the same time, I do recognize that the intent probably is to bring attention to the very serious problem facing the people of the world with respect to the pollution of air, not only in the automobile industry but in all phases of air pollution.

If the Congress had not taken important first steps in this matter, the amendment offered might have more meaning. The Congress, however, has through the Clean Air Act and the Air Quality Act laid out the guidelines for the initial steps that must be taken. Every Member ought to read title I of the Air Pollution Prevention and Control Act, section 104 (A) and (B). Here is listed the very strong, clear directive to the Secretary of Health, Education, and Welfare that positive and immedate steps should be taken to find a better solution to this problem. This is being done and good progress is being made. To pass such an amendment as offered by the gentleman from New York would be to take a drastic and almost unthinkable step.

At the same time, we all should admit that air pollution is as serious as any problem facing us in the world. A ride during the summertime through the streets of any major city in America is an open invitation for discomfort, if not nausea. If we do not do something about this problem, the prospects are horrifying. I personally think that present conditions could be harmful to the health of this Nation. It has far outstripped the point of unpleasantness. It has become a health menace. Although only a few of the very largest cities in our country are threatened at this point, principally Los Angeles, New York, and perhaps Chicago, it is obvious to all what will happen if corrective steps are not taken. In other parts of the world, the problem is even more severe. Recently, it was my privilege to visit the city of Tokyo, Japan, and the smog of air pollution hangs over that city of 11 million people like an ominous blanket, cutting off vision and making breathing difficult. I am advised that city has not yet really come to grips with the air pollution problem caused primarily by industry, but automobile pollution, of course, is a contributing factor. The cities of this country will face the same fate if we do not go forward in bold and aggressive steps.

I am confident that we have made a proper beginning, and I am confident that Government and industry together can come up with better answers. But the offender is not just the automobile industry; it is a broadspread matter and our Government should approach it from that standpoint.

Mr. PRICE of Texas. Mr. Chairman, in view of the interest expressed by the President and my colleagues here in the concept of eliminating air pollution created by carbon monoxide fumes due to automobile engines, I want to call the House's attention to an electric car designed by the EMV Corp. of Littlefield, Tex. The principals in the corporation have furnished me with a booklet which fully describes and pictures the electric car which they hope will revolutionize the auto industry.

I only wish my colleagues could see each of the impressive photos of this remarkable automobile, which is now in its final testing stages. A second prototype model will be produced in

Amarillo, Tex., during the next several months and subsequent to that several production models will be built.

I include several pages from the corporation's explanatory material in the RECORD at this point for my colleagues' benefit:

A REVOLUTION IN TRANSPORTATION

A dream has become a reality which will give birth to a revolution in the automobile transportation industry. Production is being planned for the first practical electric car ever built. Top cruising speed of the Electricar is 50 m.p.h. for best economy on battery usage. The car can be driven approximately 120 miles before a recharge. At present, it takes eight hours to recharge the system, however, a 15 to 20 minute recharge method is currently in development. The recharger can be plugged into any normal 110-volt electrical outlet. The battery system could go as long as a week without recharging, depending on its use, however, it should be recharged every night to prolong its life. A full-cycle recharge, which requires eight hours, takes approximately 8c worth of electricity. The Electricar has a set of eight six-volt industrial batteries wired in series, placed directly behind the seat. The batteries need a total of one or two gallons of water at intervals in a year's time. The batteries will last 3 to 3½ years. Normally, the wet acid batteries can be bought anywhere for $18 to $20 each. The heating system assures quick warmth for the batteries in cold weather, providing maximum efficiency. To get the car to 50 m.p.h., 28 amperes are required.

The car has three forward speeds and a reverse. The electrical control unit is adaptable to any electric motor on which various rates of speed might be desired, and controls both AC and DC current. The electrical controls and batteries can be replaced in a few minutes by a quick snap-out exchange. The overall design of the Electricar is so simple that any garage can repair the mechanical brakes, repack the wheel bearings, or refill the transmission. The average annual cost of operation is approximately $12 to $20 for recharging the batteries, a few cents for grease and transmission oil when needed, and approximately one gallon of water per year to properly service the battery. The cost of the five-horsepower electric motor is approximately $125. The motor should have a life of 25 to 30 years, and simple rewinding of the motor will be the most expensive upkeep required. Without the batteries, the total weight of the car is 700 pounds.

Air pollution from automobiles would be completely eliminated. The prototype has performed very successfully in various types of driving tests, including climbing 700 feet in a distance of 1.1 miles. The estimated selling price of the Electricar is $2,000. Other possible uses of the product include sand buggies, golf carts, delivery vans, taxis, lawn mowers, mail trucks, and airport vehicles. The body of the car is made in one piece of fiberglass. An entire new body for the car costs only approximately $250. The body can be patched like a fiberglass boat or other such structure very inexpensively. The front seat of the car very comfortably seats three people. The average automobile has 15,000 movable parts, the Electricar has less than 500, including the ball bearings and the wheels. The current model weighs 2,000 pounds, however, the production model will be reduced in weight to approximately 1,400 pounds.

THE ELECTRICAR

Width: 64 inches.
Height: 3 feet 10 inches.
Overall length: 14½ feet.
Wheelbase: 96 inches.
Trackage: 53 inches.
Weight: 2,000 pounds.
Electric motor: 5 horsepower.
Equipped with eight six-volt batteries, weighing 70 pounds each.
Solid state control system.

EMV CORP.

The EMV Corp. (Electrically Motivated Vehicle Corp.) is the designer and developer of the Electricar. The Corporation was chartered by the State of Texas in September of 1967. The Corporation has 34 stockholders from Littlefield, Tulia, Dumas, Gainesville and Amarillo, all located in Texas. Five thousand shares of stock have been issued at $10 per share.

Principal officers of the Corporation are D. L. (Cotton) Whatley, President. Glen Cowsar, Vice President; and Jim Finch, EMV Secretary-Treasurer. These officers all currently live in Amarillo, Texas.

A contract has been signed between the EMV Corporation and the Littlefield Industrial Corporation calling for Littlefield, Texas, to become headquarters for the development of the Electricar.

A second prototype model will be produced in Amarillo during the next four to five months. Subsequent to that, several production models are planned, and will be built in Littlefield.

Further information about the development of the car can be secured from any of the principal officers mentioned above, or from Mr. Jack Wicker, President of the Security State Bank, Littlefield, Texas, and also a member of the Littlefield Industrial Corporation. Also, information may be obtained from Mayor J. E. Chisholm, of Littlefield.

The CHAIRMAN. All time has expired.

The question is on the amendment to the committee amendment offered by the gentleman from New York [Mr. FARBSTEIN].

The question was taken; and on a division (demanded by Mr. FARBSTEIN) there were—ayes 22, noes 99.

So the amendment to the committee amendment was rejected.

The CHAIRMAN. The question is on the committee amendment.

[p. 24376]

The committee amendment was agreed to.

The CHAIRMAN. Under the rule, the Committee rises.

Accordingly the Committee rose; and the Speaker having resumed the chair, Mr. GALLAGHER, Chairman of the Committee of the Whole House on the State of the Union, reported that that Committee, having had under consideration the bill (H.R. 12085) to amend the Clean Air Act to extend the program of research relating to fuel and vehicles, pursuant to House Resolution 518, he reported the bill back to the House with an amendment adopted by the Committee of the Whole.

The SPEAKER. Under the rule, the previous question is ordered.

The question is on the amendment.

The amendment was agreed to.

The SPEAKER. The question is on the engrossment and third reading of the bill.

The bill was ordered to be engrossed and read a third time, and was read the third time.

The SPEAKER. The question is on the passage of the bill.

The question was taken, and the Speaker announced that the ayes appeared to have it.

Mr. SPRINGER. Mr. Speaker, I object to the vote on the ground that a quorum is not present and make the point of order that a quorum is not present.

The SPEAKER. Evidently a quorum is not present.

The Doorkeeper will close the doors, the Sergeant at Arms will notify absent Members, and the Clerk will call the roll.

The question was taken; and there were—yeas 332, nays 0, not voting 99, * * *.

* * * * *

So the bill was passed.

* * * * *

Mr. FRIEDEL. Mr. Speaker, pursuant to House Resolution 518, I call up from the Speaker's table for immediate consideration the bill S. 2276.

The Clerk read the title of the Senate bill.

The Clerk read the Senate bill, as follows:

S. 2276

AMENDMENT OFFERED BY MR. FRIEDEL

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 104(c) of the Clean Air Act is amended by striking out "the fiscal year ending June 30, 1969" and inserting in lieu thereof "each of the fiscal years ending June 30, 1969, and June 30, 1970".

Mr. FRIEDEL. Mr. Speaker, I offer an amendment.

The Clerk read as follows:

[p. 24377]

Amendment offered by Mr. FRIEDEL: Strike out all after the enacting clause of S. 2276 and insert in lieu thereof the provisions of H.R. 12085 as passed, as follows:

"That the first sentence of section 104(c) of the Clean Air Act (42 U.S.C. 1857b-1(c)) is amended by striking out 'and', and by striking out the period at the end thereof and inserting in lieu thereof ', and for the fiscal year ending June 30, 1970, $18,700,000.' "

Mr. GROSS. Mr. Speaker, will the gentleman yield?

Mr. FRIEDEL. I yield to the gentleman from Iowa.

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Mr. GROSS. Mr. Speaker, may I ask the gentleman from Maryland what is the nature of this legislation?

Mr. FRIEDEL. Mr. Speaker, we have just passed a House bill, and we are seeking to substitute in the Senate bill the language passed by the House. It is a similar bill.

Mr. GROSS. Mr. Speaker, I thank the gentleman.

The SPEAKER. The question is on the amendment offered by the gentleman from Maryland.

The amendment was agreed to.

The Senate bill was ordered to be read a third time, was read the third time, and passed, and a motion to reconsider was laid on the table.

A similar House bill (H.R. 12085) was laid on the table.

[p. 24378]

1.1i(4)(c) Nov. 25: House and Senate agreed to conference report, pp. 35640; 35805–35807

CONFERENCE REPORT
ON S. 2276, CLEAN AIR ACT

Mr. STAGGERS. Mr. Speaker, I call up the conference report on the bill (S. 2276) to extend for 1 year the authorization for research relating to fuels and vehicles under the provisions of the Clean Air Act, and ask unanimous consent that the statement of the managers on the part of the House be read in lieu of the report.

The Clerk read the title of the bill.

The SPEAKER. Is there objection to the request of the gentleman from West Virginia?

There was no objection.

The Clerk read the statement.

(For conference report and statement, see proceedings of the House of November 24, 1969.)

Mr. STAGGERS. Mr. Speaker, I move the previous question on the conference report.

The previous question was ordered.

The conference report was agreed to.

A motion to reconsider was laid on the table.

[p. 35640]

CLEAN AIR ACT—
CONFERENCE REPORT

Mr. MUSKIE. Mr. President, I submit a report of the committee of conference on the disagreeing votes of the two Houses on the amendment of the House to the bill (S. 2276) to extend for 1 year the authorization for research relating to fuels and vehicles under the provisions of the Clean Air Act. I ask unanimous consent for the present consideration of the report.

The PRESIDING OFFICER. The report will be read for the information of the Senate.

The assistant legislative clerk read the report.

(For conference report, see House proceedings of November 24, 1969, p. H11294, CONGRESSIONAL RECORD.)

The PRESIDING OFFICER. Is there objection to the present consideration of the report?

There being no objection, the Senate proceeded to consider the report.

Mr. MUSKIE. Mr. President, on July 8 the Senate unanimously agreed to a 1-year extension of the broadened research and demonstration section of the Clean Air Act. Without this legislation the Appropriations Committee would be unable to fund the fuels combustion research efforts which are so vitally needed to achieve control of fossil-fuel-fired powerplants and automobile engines. The House of

Representatives passed the National Air Pollution Control Administration budget without funds for this section due to the lack of an authorization.

The conference committee agreed on

[p. 35805]

an amount 50 percent less than that which was passed by the Senate and which represents a $26.3 million increase over the House figure. The House committee argued that there was no need to authorize an amount in excess of the administration's budget request. The Senate conferees disagreed and indicated a strong belief that the purpose of an authorizing committee was to indicate program need, not program expenditure. Also, the Senate conferees did not think that the administration's budget request would provide an adequate research investment this year.

Mr. President, across the Nation people have spoken out for air pollution control. The manifestations of public opinion which have occurred in public hearing after public hearing in numerous air quality regions have indicated a growing demand for clean air.

I will speak on this subject in the near future when I discuss implementation of the Air Quality Act. However, suffice it to say that air quality standards are being set. In many regions, plans for implementation will soon have to be developed. Those plans for implementation will depend on the availability of technology, alternative fuels, and other methods of reducing air pollution. Control technology for oxides of sulfur, one of the two pollutants for which standards are being set, other than alternative fuels and low sulfur fuels, is not available. It was primarily for this purpose that this section was enacted in 1967.

There is a limited supply of low sulfur coal which will be available in most communities to meet standards now. But a major technological breakthrough will be required to assure compliance with the standards which have been proposed and which meet the Nation's energy demands at the same time.

Mr. President, I understand that those who sell and those who use high sulfur coal are arguing against early implementation of proposed standards for sulfur oxides and are opposing use of low sulfur coal because of costs. They are content to wait until control technology is developed pursuant to this section of the Clean Air Act.

I find this unconscionable and unacceptable. If air pollution control officials in any part of the Nation are in fact not going to require alternative fuels as a means of control and wait for technology to be developed, I would personally urge elimination of this section of the law. Section 104 must not be used as an excuse to delay effective control. Low sulfur coal and alternative fuels must be used during the entire period of technology development.

Another area where more research is needed is in developing alternatives to the internal combustion engine and a more effective means of controlling the existing engine. Too little has been done in this area. The administration has been weak in its response to the need to develop this technology. The automobile industry has been guilty of delay.

I would hope that, with this compromise amount of $45 million, the President, the Director of the Bureau of the Budget, and the Secretary of Health, Education, and Welfare would take cognizance of the congressional concern for this program and recognize that $45 million is not merely a compromise figure, but is a rejection of an inadequate budget request and an insistence on the part of the Con-

gress that additional funds be provided for this program.

Mr. President, today I have sent a letter cosigned by Senator RANDOLPH and other members of the Subcommittee on Air and Water Pollution requesting the Appropriations Committee to increase the funds for this program this year in order that oxides of sulfur research and motor vehicle pollution control research can proceed at an accelerated pace.

I hope that my colleagues will support me in this request.

I ask unanimous consent that the letter to the Senator from Washington [Mr. MAGNUSON] be printed in the RECORD at this point.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

COMMITTEE ON PUBLIC WORKS,

Washington, D.C., November 25, 1969

Hon. WARREN G. MAGNUSON,

Chairman, Senate Appropriations Subcommittee on Labor, Health, Education, and Welfare, and Related Agencies, U.S. Senate, Washington, D.C.

DEAR WARREN: As you know, the Air Quality Act of 1967 is a far-reaching and critically important measure authorizing major Federal support for a national program of air quality enhancement. Substantial progress is being made toward the implementation of this program. However, our capacity to pollute exceeds our capacity to control pollution. For example, in the absence of control, sulfur oxide air pollution levels will continue to increase for the next ten years.

This situation need not continue. The Air Quality Act of 1967 provided adequate authority to develop necessary technology. However, appropriation and budget requests for that program have been inadequate. In 1969 the Administration requested $31.3 million for Section 104. Only $18.7 million were appropriated. For FY 1970 the Administration only requested $18.7 million for Section 104.

The effect of these reduced appropriations will be continued delay in the development of sulfur oxide and motor vehicle emissions control technology. Standards are now being set by the States under the Air Quality Act for particulates and sulfur oxides, but effective long-term implementation of the sulfur oxide standards may be delayed in the absence of technically feasible control systems.

Senate and House conferees have agreed to authorize $45 million to carry out Section 104 in FY 1970 but, as mentioned above, the Administration requested only $18.7 million. The House did not appropriate any funds for this section in the absence of an authorization.

As you know, research and demonstration efforts to control emissions from motor vehicles and to develop alternatives to the internal combustion engine are carried out with Section 104 funds. This effort only received approximately $4 million in 1969 for new propulsion systems as well as control methods applicable to existing systems. This is obviously inadequate.

During recent hearings before your Subcommittee, Mr. C. C. Johnson agreed with Senator Case on the current status of sulfur oxide control technology: "In other words, we are at a very primitive state of the art here." Air pollution control technologies must keep pace with the standards setting procedure by the states and the Federal program must be strengthened in this area.

Yet, at this crucial time, the Administration reduced the fiscal 1970 budget of the Consumer Protection and Environmental Health Service by 13 percent, or $30 million. Environmental quality must become a more important priority. If the Administration does not recognize this need, then the Congress must make up the slack.

Your efforts to strengthen this program by providing adequate funding for research relating to the development of new and improved methods to control fuel combustion by-products will assist in indicating Congressional concern.

We urge you to consider an increase in the Section 104 appropriation to the authorized level of $45 million, with a directive to emphasize development of sulfur oxide and motor vehicle emission controls technology.

If we can be of further assistance in this matter, please let me know.

Sincerely,

EDMUND S. MUSKIE.
HOWARD H. BAKER, Jr.
BIRCH BAYH.
THOMAS F. EAGLETON.
JOSEPH M. MONTOYA.
JENNINGS RANDOLPH.
WILLIAM B. SPONG, Jr.

FUELS RESEARCH IS VITALLY ESSENTIAL IN POLLUTION PROGRAMS

Mr. RANDOLPH. Mr. President, on Thursday, November 20, following the agreement of the House and Senate conferees on S. 2276, I reported the results of that conference to the Senate. The $45 million which this bill

authorizes for research on controlling air pollution from fuels combustion and automobile emissions is needed to fund this fiscal year's appropriation. I reiterate that the amount of the authorization falls short of the actual needs for research funds in this field.

The authorization in this bill should not be considered as a precedent for future action. Next year the Committee on Public Works, through its Subcommittee on Air and Water Pollution, will review fuels combustion research needs and attempts to establish authorizations which realistically reflect them.

I hope that when the subcommittee conducts its hearings in this area next year that the Department of Health, Education, and Welfare will be able to provide a clear statement of its program and schedule for fuels combustion research and for the development of alternatives to the gasoline internal combustion engine as propulsion for the automobile.

All of the projections for the energy needs of the United States in the next two or three decades, and all the projections for automobile production in the near future indicate that the quality of air of the urban centers of the United States will continue to be degraded unless these critical problems of eliminating the pollutants from the combustion of fossil fuels and from automobile emissions are solved. There is no higher priority for research and development in the field of air pollution abatement than this challenge. It is my hope that the executive branch will assume greater initiative in this area. The Congress must act affirmatively.

[p. 35806]

Mr. MUSKIE. I urge the adoption of the conference report.

The PRESIDING OFFICER. The question is on agreeing to the conference report.

The report was agreed to.

Mr. MUSKIE. Mr. President, I move to reconsider the vote by which the conference report was agreed to.

Mr. BYRD of West Virginia. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

[p. 35807]

1.1j EXTENSION OF CLEAN AIR ACT

July 10, 1970, P.L. 91-316, 84 Stat. 416

AN ACT To extend the Clean Air Act, as amended, and the Solid Waste Disposal Act, as amended, for a period of sixty days

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That pending extensions by Act of Congress of the Clean Air Act and Solid Waste Disposal Act, the authorizations contained in sections 104(c) and 309 of the Clean Air Act, as amended, for the fiscal year ending June 30, 1970, and the authorization contained in section 210 of the Solid Waste Disposal Act, as amended, for the fiscal year ending June 30, 1970, shall remain available through August 31, 1970, notwithstanding any provisions of those sections.

Approved July 10, 1970.

[p. 1]

1.1j(1) SENATE COMMITTEE ON PUBLIC WORKS

S. REP. No. 91-941, 91st Cong., 2d Sess. (1970)

TEMPORARY EXTENSIONS OF CLEAN AIR AND SOLID WASTE DISPOSAL ACT

JUNE 23, 1970.—Ordered to be printed

Mr. MUSKIE, from the Committee on Public Works, submitted the following

REPORT

[To accompany S. 4012]

The Committee on Public Works reports a clean bill, S. 4012, and recommends that the bill do pass.

The purpose of this bill is to provide an extension of the authorization for the solid waste and air pollution programs. This bill will continue those authorizations at their present level through August 31, 1970. It is needed to provide time for careful

consideration of pending air quality and solid waste legislation. The authorizations in existing law are greater than the levels of appropriation requested in the President's budget. This extension would allow appropriation for this 2-month period of the unappropriated balance of fiscal year 1970 authorizations. Therefore, the Appropriations Committee can be guided by this resolution. The Senate Committee on Public Works fully anticipates completion of action on both solid waste legislation and air pollution legislation prior to the first of September. The Resource Recovery Act, S. 2005, will be reported for Senate action in the near future. Pending air pollution legislation will be available for Senate floor action by mid-July.

[p. 1]

1.1j(2) CONGRESSIONAL RECORD, VOL. 116 (1970)

1.1j(2)(a) June 25: Considered and passed Senate, pp. 21363–21364

EXTENSION OF THE CLEAN AIR ACT AND SOLID WASTE DISPOSAL ACT

The bill (S. 4012) to extend the Clean Air Act, as amended, and the Solid Waste Disposal Act, as amended, for a period of 60 days was considered, ordered to be engrossed for a third reading, read the third time, and passed, as follows:

S. 4012

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That pending extensions by Act of Congress of the Clean Air Act and Solid Waste Disposal Act, the authorizations contained in sections 104(c) and 309 of the Clean Air Act, as amended, for the fiscal year ending June 30, 1970, and the authorization contained in section 210 of the Solid Waste

[p. 21363]

Disposal Act, as amended, for the fiscal year ending June 30, 1970, shall remain available through August 31, 1970, notwithstanding any provisions of those sections.

Mr. MANSFIELD. Mr. President, I ask unanimous consent to have printed in the RECORD an excerpt from the report (No. 91-941), explaining the purposes of the measure.

There being no objection, the excerpt was ordered to be printed in the RECORD, as follows:

The purpose of this bill is to provide an extension of the authorization for the solid waste and air pollution programs. This bill will continue those authorizations at their present level through August 31, 1970. It is needed to provide time for careful consideration of pending air quality and solid waste legislation. The authorizations in existing law are greater than the levels of appropriations requested in the President's budget. This extension would allow appropriation for this 2-month period of the unappropriated balance of fiscal year 1970 authorizations. Therefore, the Appropriations Committee can be guided by this resolution. The Senate Committee on Public Works fully anticipates completion of action on both solid waste legislation and air pollution legislation prior to the first of September. The Resource Recovery Act, S. 2005, will be reported for Senate action in the near future. Pending air pollution legislation will be available for Senate floor action by mid-July.

[p. 21364]

1.1j(2)(b)June 30: Considered and passed House, p. 22095

EXTENDING THE CLEAN AIR ACT, AND THE SOLID WASTE DISPOSAL ACT

Mr. STAGGERS. Mr. Speaker, I ask unanimous consent for the immediate consideration of the bill (S. 4012) to extend the Clean Air Act, as amended, and the Solid Waste Disposal Act, as amended, for a period of 60 days.

The Clerk read the title of the Senate bill.

The SPEAKER. Is there objection to the request of the gentleman from West Virginia?

There was no objection.

The Clerk read the Senate bill as follows:

S. 4012

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That pending extensions by Act of Congress of the Clean Air Act and Solid Waste Disposal Act, the authorizations contained in sections 104(c) and 309 of the Clean Air Act, as amended, for the fiscal year ending June 30, 1970, and the authorization contained in section 210 of the Solid Waste Disposal Act, as amended, for the fiscal year ending June 30, 1970, shall remain available through August 31, 1970, notwithstanding any provisions of those sections.

The Senate bill was ordered to be read a third time, was read the third time, and passed, and a motion to reconsider was laid on the table.

[p. 22095]

1.1k CLEAN AIR AMENDMENTS OF 1970

December 31, 1970, P.L. 91-604, 84 Stat. 1676

AN ACT To amend the Clean Air Act to provide for a more effective program to improve the quality of the Nation's air

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Clean Air Amendments of 1970".

RESEARCH

SEC. 2. (a) Section 103 of the Clean Air Act (42 U.S.C. 1857, et seq.) is amended by adding at the end thereof the following new subsection:

"(f) (1) In carrying out research pursuant to this Act, the Administrator shall give special emphasis to research on the short- and long-term effects of air pollutants on public health and welfare. In the furtherance of such research, he shall conduct an accelerated research program—

"(A) to improve knowledge of the contribution of air pollutants to the occurrence of adverse effects on health, including, but not limited to, behavioral, physiological, toxicological, and biochemical effects; and

"(B) to improve knowledge of the short- and long-term effects of air pollutants on welfare.

"(2) In carrying out the provisions of this subsection the Administrator may—

"(A) conduct epidemiological studies of the effects of air pollutants on mortality and morbidity;

"(B) conduct clinical and laboratory studies on the immunologic, biochemical, physiological, and the toxicological effects including carcinogenic, teratogenic, and mutagenic effects of air pollutants;

"(C) utilize, on a reimbursable basis, the facilities of existing Federal scientific laboratories and research centers;

"(D) utilize the authority contained in paragraphs (1) through (4) of subsection (b); and

"(E) consult with other appropriate Federal agencies to assure that research or studies conducted pursuant to this subsection will be coordinated with research and studies of such other Federal agencies.

"(3) In entering into contracts under this subsection, the Ad-

ministrator is authorized to contract for a term not to exceed 10 years in duration. For the purposes of this paragraph, there are authorized to be appropriated $15,000,000. Such amounts as are apropriated shall remain available until expended and shall be in addition to any other appropriations under this Act."

(b) Section 104(a) (1) of the Clean Air Act is amended to read as follows:

"(1) conduct and accelerate research programs directed toward development of improved, low-cost techniques for—

"(A) control of combustion byproducts of fuels,

"(B) removal of potential air pollutants from fuels prior to combustion,

"(C) control of emissions from the evaporation of fuels,

"(D) improving the efficiency of fuels combustion so as to decrease atmospheric emissions, and

"(E) producing synthetic or new fuels which, when used, result in decreased atmospheric emissions."

[p. 1676]

(c) Section 104(a)(2) of the Clean Air Act is amended by striking out "and (B)" and inserting in lieu thereof the following: "(B) part of the cost of programs to develop low emission alternatives to the present internal combustion engine; (C) the cost to purchase vehicles and vehicle engines, or portions thereof, for research, development, and testing purposes; and (D)".

STATE AND REGIONAL GRANT PROGRAMS

SEC. 3. (a) Section 105(a) (1) of the Clean Air Act is amended to read as follows:

"GRANTS FOR SUPPORT OF AIR POLLUTION PLANNING AND CONTROL PROGRAMS

"SEC. 105. (a) (1) (A) The Administrator may make grants to air pollution control agencies in an amount up to two-thirds of the cost of planning, developing, establishing, or improving, and up to one-half of the cost of maintaining, programs for the prevention and control of air pollution or implementation of national primary and secondary ambient air quality standards.

"(B) Subject to subparagraph (C), the Administrator may make grants to air pollution control agencies within the meaning of paragraph (1), (2), or (4) of section 302(b) in an amount

up to three-fourths of the cost of planning, developing, establishing, or improving, and up to three-fifths of the cost of maintaining, any program for the prevention and control of air pollution or implementation of national primary and secondary ambient air quality standards in an area that includes two or more municipalities, whether in the same or different States.

"(C) With respect to any air quality control region or portion thereof for which there is an applicable implementation plan under section 110, grants under subparagraph (B) may be made only to air pollution control agencies which have substantial responsibilities for carrying out such applicable implementation plan."

(b) (1) Section 105 of the Clean Air Act is further amended by adding at the end thereof the following new subsection:

"(d) The Administrator, with the concurrence of any recipient of a grant under this section, may reduce the payments to such recipient by the amount of the pay, allowances, traveling expenses, and any other costs in connection with the detail of any officer or employee to the recipient under section 301 of this Act, when such detail is for the convenience of, and at the request of, such recipient and for the purpose of carrying out the provisions of this Act. The amount by which such payments have been reduced shall be available for payment of such costs by the Administrator, but shall, for the purpose of determining the amount of any grant to a recipient under subsection (a) of this section, be deemed to have been paid to such agency."

(2) Section 301(b) of the Clean Air Act is amended (A) by striking out "Public Health Service" and inserting in lieu thereof "Environmental Protection Agency" and (B) by striking out the second sentence thereof.

(c) Section 106 of the Clean Air Act is amended to read as follows:

"INTERSTATE AIR QUALITY AGENCIES OR COMMISSIONS

"SEC. 106. For the purpose of developing implementation plans for any interstate air quality control region designated pursuant to section 107, the Administrator is authorized to pay, for two years, up to 100 per centum of the air quality planning program costs of any agency

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designated by the Governors of the affected States, which agency

shall be capable of recommending to the Governors plans for implementation of national primary and secondary ambient air quality standards and shall include representation from the State and appropriate political subdivisions within the air quality control region. After the initial two-year period the Administrator is authorized to make grants to such agency in an amount up to three-fourths of the air quality planning program costs of such agency."

AMBIENT AIR QUALITY AND EMISSION STANDARDS

SEC. 4. (a) The Clean Air Act is amended by striking out section 107; by redesignating sections 108, 109, 110, and 111 as 115, 116, 117, and 118, respectively; and by inserting after section 106 the following new sections:

"AIR QUALITY CONTROL REGIONS

"SEC. 107. (a) Each State shall have the primary responsibility for assuring air quality within the entire geographic area comprising such State by submitting an implementation plan for such State which will specify the manner in which national primary and secondary ambient air quality standards will be achieved and maintained within each air quality control region in such State.

"(b) For purposes of developing and carrying out implementation plans under section 110—

"(1) an air quality control region designated under this section before the date of enactment of the Clean Air Amendments of 1970, or a region designated after such date under subsection (c), shall be an air quality control region; and

"(2) the portion of such State which is not part of any such designated region shall be an air quality control region, but such portion may be subdivided by the State into two or more air quality control regions with the approval of the Administrator.

"(c) The Administrator shall, within 90 days after the date of enactment of the Clean Air Amendments of 1970, after consultation with appropriate State and local authorities, designate as an air quality control region any interstate area or major intrastate area which he deems necessary or appropriate for the attainment and maintenance of ambient air quality standards. The Adminis-

trator shall immediately notify the Governors of the affected States of any designation made under this subsection.

"AIR QUALITY CRITERIA AND CONTROL TECHNIQUES

"SEC. 108. (a) (1) For the purpose of establishing national primary and secondary ambient air quality standards, the Administrator shall within 30 days after the date of enactment of the Clean Air Amendments of 1970 publish, and shall from time to time thereafter revise, a list which includes each air pollutant—

"(A) which in his judgment has an adverse effect on public health or welfare;

"(B) the presence of which in the ambient air results from numerous or diverse mobile or stationary sources; and

"(C) for which air quality criteria had not been issued before the date of enactment of the Clean Air Amendments of 1970, but for which he plans to issue air quality criteria under this section.

"(2) The Administrator shall issue air quality criteria for an air pollutant within 12 months after he has included such pollutant in a list under paragraph (1). Air quality criteria for an air pollutant shall accurately reflect the latest scientific knowedge useful in indicating

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the kind and extent of all identifiable effects on public health or welfare which may be expected from the presence of such pollutant in the ambient air, in varying quantities. The criteria for an air pollutant, to the extent practicable, shall include information on—

"(A) those variable factors (including atmospheric conditions) which of themselves or in combination with other factors may alter the effects on public health or welfare of such air pollutant;

"(B) the types of air pollutants which, when present in the atmosphere, may interact with such pollutant to produce an adverse effect on public health or welfare; and

"(C) any known or anticipated adverse effects on welfare.

"(b) (1) Simultaneously with the issuance of criteria under subsection (a), the Administrator shall, after consultation with appropriate advisory committees and Federal departments and agencies, issue to the States and appropriate air pollution control agencies information on air pollution control techniques, which information shall include data relating to the technology and costs

of emission control. Such information shall include such data as are available on available technology and alternative methods of prevention and control of air pollution. Such information shall also include data on alternative fuels, processes, and operating methods which will result in elimination or significant reduction of emissions.

"(2) In order to assist in the development of information on pollution control techniques, the Administrator may establish a standing consulting committee for each air pollutant included in a list published pursuant to subsection (a) (1), which shall be comprised of technically qualified individuals representative of State and local governments, industry, and the academic community. Each such committee shall submit, as appropriate, to the Administrator information related to that required by paragraph (1).

"(c) The Administrator shall from time to time review, and, as appropriate, modify, and reissue any criteria or information on control techniques issued pursuant to this section.

"(d) The issuance of air quality criteria and information on air pollution control techniques shall be announced in the Federal Register and copies shall be made available to the general public.

"NATIONAL AMBIENT AIR QUALITY STANDARDS

"SEC. 109. (a) (1) The Administrator—

"(A) within 30 days after the date of enactment of the Clean Air Amendments of 1970, shall publish proposed regulations prescribing a national primary ambient air quality standard and a national secondary ambient air quality standard for each air pollutant for which air quality criteria have been issued prior to such date of enactment; and

"(B) after a reasonable time for interested persons to submit written comments thereon (but no later than 90 days after the initial publication of such proposed standards) shall by regulation promulgate such proposed national primary and secondary ambient air quality standards with such modifications as he deems appropriate.

"(2) With respect to any air pollutant for which air quality criteria are issued after the date of enactment of the Clean Air Amendments of 1970, the Administrator shall publish, simultaneously with the issuance of such criteria and information, proposed national primary and secondary ambient air quality standards for any such pollutant. The procedure provided for in

paragraph (1) (B) of this subsection shall apply to the promulgation of such standards.

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"(b) (1) National primary ambient air quality standards, prescribed under subsection (a) shall be ambient air quality standards the attainment and maintenance of which in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health. Such primary standards may be revised in the same manner as promulgated.

"(2) Any national secondary ambient air quality standard prescribed under subsection (a) shall specify a level of air quality the attainment and maintenance of which in the judgment of the Administrator, based on such criteria, is requisite to protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air. Such secondary standards may be revised in the same manner as promulgated.

"IMPLEMENTATION PLANS

"SEC. 110. (a) (1) Each State shall, after reasonable notice and public hearings, adopt and submit to the Administrator, within nine months after the promulgation of a national primary ambient air quality standard (or any revision thereof) under section 109 for any air pollutant, a plan which provides for implementation, maintenance, and enforcement of such primary standard in each air quality control region (or portion thereof) within such State. In addition, such State shall adopt and submit to the Administrator (either as a part of a plan submitted under the preceding sentence or separately) within nine months after the promulgation of a national ambient air quality secondary standard (or revision thereof), a plan which provides for implementation, maintenance, and enforcement of such secondary standard in each air quality control region (or portion thereof) within such State. Unless a separate public hearing is provided, each State shall consider its plan implementing such secondary standard at the hearing required by the first sentence of this paragraph.

"(2) The Administrator shall, within four months after the date required for submission of a plan under paragraph (1), approve or disapprove such plan or each portion thereof. The

Administrator shall approve such plan, or any portion thereof, if he determines that it was adopted after reasonable notice and hearing and that—

"(A) (i) in the case of a plan implementing a national primary ambient air quality standard, it provides for the attainment of such primary standard as expeditiously as practicable but (subject to subsection (e)) in no case later than three years from the date of approval of such plan (or any revision thereof to take account of a revised primary standard); and (ii) in the case of a plan implementing a national secondary ambient air quality standard, it specifies a reasonable time at which such secondary standard will be attained;

"(B) it includes emission limitations, schedules, and timetables for compliance with such limitations, and such other measures as may be necessary to insure attainment and maintenance of such primary or secondary standard, including, but not limited to, land-use and transportation controls;

"(C) it includes provision for establishment and operation of appropriate devices, methods, systems, and procedures necessary to (i) monitor, compile, and analyze data on ambient air quality and, (ii) upon request, make such data available to the Administrator;

"(D) it includes a procedure, meeting the requirements of paragraph (4), for review (prior to construction or modification) of the location of new sources to which a standard of performance will apply;

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"(E) it contains adequate provisions for intergovernmental cooperation, including measures necessary to insure that emissions of air pollutants from sources located in any air quality control region will not interfere with the attainment or maintenance of such primary or secondary standard in any portion of such region outside of such State or in any other air quality control region;

"(F) it provides (i) necessary assurances that the State will have adequate personnel, funding, and authority to carry out such implementation plan, (ii) requirements for installation of equipment by owners or operators of stationary sources to monitor emissions from such sources, (iii) for periodic reports on the nature and amounts of such emis-

sions; (iv) that such reports shall be correlated by the State agency with any emission limitations or standards established pursuant to this Act, which reports shall be available at reasonable times for public inspection; and (v) for authority comparable to that in section 303, and adequate contingency plans to implement such authority;

"(G) it provides, to the extent necessary and practicable, for periodic inspection and testing of motor vehicles to enforce compliance with applicable emission standards; and

"(H) it provides for revision, after public hearings, of such plan (i) from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of achieving such primary or secondary standard; or (ii) whenever the Administrator finds on the basis of information available to him that the plan is substantially inadequate to achieve the national ambient air quality primary or secondary standard which it implements.

"(3) The Administrator shall approve any revision of an implementation plan applicable to an air quality control region if he determines that it meets the requirements of paragraph (2) and has been adopted by the State after reasonable notice and public hearings.

"(4) The procedure referred to in paragraph (2)(D) for review, prior to construction or modification, of the location of new sources shall (A) provide for adequate authority to prevent the construction or modification of any new source to which a standard of performance under section 111 will apply at any location which the State determines will prevent the attainment or maintenance within any air quality control region (or portion thereof) within such State of a national ambient air quality primary or secondary standard, and (B) require that prior to commencing construction or modification of any such source, the owner or operator thereof shall submit to such State such information as may be necessary to permit the State to make a determination under clause (A).

"(b) The Administrator may, wherever he determines necessary, extend the period for submission of any plan or portion thereof which implements a national secondary ambient air quality standard for a period not to exceed 18 months from the date otherwise required for submission of such plan.

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"(c) The Administrator shall, after consideration of any State hearing record, promptly prepare and publish proposed regulations setting forth an implementation plan, or portion thereof, for a State if—

"(1) the State fails to submit an implementation plan for any national ambient air quality primary or secondary standard within the time prescribed,

"(2) the plan, or any portion thereof, submitted for such State

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is determined by the Administrator not to be in accordance with the requirements of this section, or

"(3) the State fails, within 60 days after notification by the Administrator or such longer period as he may prescribe, to revise an implementation plan as required pursuant to a provision of its plan referred to in subsection (a) (2) (H).

If such State held no public hearing associated with respect to such plan (or revision thereof), the Administrator shall provide opportunity for such hearing within such State on any proposed regulation. The Administrator shall, within six months after the date required for submission of such plan (or revision thereof), promulgate any such regulations unless, prior to such promulgation, such State has adopted and submitted a plan (or revision) which the Administrator determines to be in accordance with the requirements of this section.

"(d) For purposes of this Act, an applicable implementation plan is the implementation plan, or most recent revision thereof, which has been approved under subsection (a) or promulgated under subsection (c) and which implements a national primary or secondary ambient air quality standard in a State.

"(e) (1) Upon application of a Governor of a State at the time of submission of any plan implementing a national ambient air quality primary standard, the Administrator may (subject to paragraph (2)) extend the three-year period referred to in subsection (a) (2) (A) (i) for not more than two years for an air quality control region if after review of such plan the Administrator determines that—

"(A) one or more emission sources (or classes of moving sources) are unable to comply with the requirements of such plan which implement such primary standard because the necessary technology or other alternatives are not available

or will not be available soon enough to permit compliance within such three-year period, and

"(B) the State has considered and applied as a part of its plan reasonably available alternative means of attaining such primary standard and has justifiably concluded that attainment of such primary standard within the three years cannot be achieved.

"(2) The Administrator may grant an extension under paragraph (1) only if he determines that the State plan provides for—

"(A) application of the requirements of the plan which implement such primary standard to all emission sources in such region other than the sources (or classes) described in paragraph (1)(A) within the three-year period, and

"(B) such interim measures of control of the sources (or classes) described in paragraph (1)(A) as the Administrator determines to be reasonable under the circumstances.

"(f)(1) Prior to the date on which any stationary source or class of moving sources is required to comply with any requirement of an applicable implementation plan the Governor of the State to which such plan applies may apply to the Administrator to postpone the applicability of such requirement to such source (or class) for not more than one year. If the Administrator determines that—

"(A) good faith efforts have been made to comply with such requirement before such date,

"(B) such source (or class) is unable to comply with such requirement because the necessary technology or other alternative methods of control are not available or have not been available for a sufficient period of time,

"(C) any available alternative operating procedures and interim control measures have reduced or will reduce the impact of such source on public health, and

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"(D) the continued operation of such source is essential to national security or to the public health or welfare,

then the Administrator shall grant a postponement of such requirement.

"(2)(A) Any determination under paragraph (1) shall (i) be made on the record after notice to interested persons and opportunity for hearing, (ii) be based upon a fair evaluation of

the entire record at such hearing, and (iii) include a statement setting forth in detail the findings and conclusions upon which the determination is based.

"(B) Any determination made pursuant to this paragraph shall be subject to judicial review by the United States court of appeals for the circuit which includes such State upon the filing in such court within 30 days from the date of such decision of a petition by any interested person praying that the decision be modified or set aside in whole or in part. A copy of the petition shall forthwith be sent by registered or certified mail to the Administrator and thereupon the Administrator shall certify and file in such court the record upon which the final decision complained of was issued, as provided in section 2112 of title 28, United States Code. Upon the filing of such petition the court shall have jurisdiction to affirm or set aside the determination complained of in whole or in part. The findings of the Administrator with respect to questions of fact (including each determination made under subparagraphs (A), (B), (C), and (D) of paragraph (1)) shall be sustained if based upon a fair evaluation of the entire record at such hearing.

"(C) Proceedings before the court under this paragraph shall take precedence over all the other causes of action on the docket and shall be assigned for hearing and decision at the earliest practicable date and expedited in every way.

"(D) Section 307(a) (relating to subpoenas) shall be applicable to any proceeding under this subsection.

"STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

"SEC. 111. (a) For purposes of this section:

"(1) The term 'standard of performance' means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction) the Administrator determines has been adequately demonstrated.

"(2) The term 'new source' means any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such source.

"(3) The term 'stationary source' means any building,

structure, facility, or installation which emits or may emit any air pollutant.

"(4) The term 'modification' means any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted.

"(5) The term 'owner or operator' means any person who owns, leases, operates, controls, or supervises a stationary source.

"(6) The term 'existing source' means any stationary source other than a new source.

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"(b) (1) (A) The Administrator shall, within 90 days after the date of enactment of the Clean Air Amendments of 1970, publish (and from time to time thereafter shall revise) a list of categories of stationary sources. He shall include a category of sources in such list if he determines it may contribute significantly to air pollution which causes or contributes to the endangerment of public health or welfare.

"(B) Within 120 days after the inclusion of a category of stationary sources in a list under subparagraph (A), the Administrator shall propose regulations, establishing Federal standards of performance for new sources within such category. The Administrator shall afford interested persons an opportunity for written comment on such proposed regulations. After considering such comments, he shall promulgate, within 90 days after such publication, such standards with such modifications as he deems appropriate. The Administrator may, from time to time, revise such standards following the procedure required by this subsection for promulgation of such standards. Standards of performance or revisions thereof shall become effective upon promulgation.

"(2) The Administrator may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing such standards.

"(3) The Administrator shall, from time to time, issue information on pollution control techniques for categories of new sources and air pollutants subject to the provisions of this section.

"(4) The provisions of this section shall apply to any new source owned or operated by the United States.

"(c) (1) Each State may develop and submit to the Administrator a procedure for implementing and enforcing standards of performance for new sources located in such State. If the Administrator finds the State procedure is adequate, he shall delegate to such State any authority he has under this Act to implement and enforce such standards (except with respect to new sources owned or operated by the United States).

"(2) Nothing in this subsection shall prohibit the Administrator from enforcing any applicable standard of performance under this section.

"(d) (1) The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 110 under which each State shall submit to the Administrator a plan which (A) establishes emission standards for any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 108(a) or 112 (b) (1) (A) but (ii) to which a standard of performance under subsection (b) would apply if such existing source were a new source, and (B) provides for the implementation and enforcement of such emission stadards.

"(2) The Administrator shall have the same authority—

"(A) to prescribe a plan for a State in cases where the State fails to submit a satisfactory plan as he would have under section 110(c) in the case of failure to submit an implementation plan, and

"(B) to enforce the provisions of such plan in cases where the State fails to enforce them as he would have under sections 113 and 114 with respect to an implementation plan.

"(e) After the effective date of standards of performance promulgated under this section, it shall be unlawful for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source.

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"NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

"SEC. 112. (a) For purposes of this section—

"(1) The term 'hazardous air pollutant' means an air pollutant to which no ambient air quality standard is applicable and which in the judgment of the Administrator may cause, or contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness.

"(2) The term 'new source' means a stationary source the

construction or modification of which is commenced after the Administrator proposes regulations under this section establishing an emission standard which will be applicable to such source.

"(3) The terms 'stationary source', 'modification', 'owner or operator' and 'existing source' shall have the same meaning as such terms have under section 111(a).

"(b)(1)(A) The Administrator shall, within 90 days after the date of enactment of the Clean Air Amendments of 1970, publish (and shall from time to time thereafter revise) a list which includes each hazardous air pollutant for which he intends to establish an emission standard under this section.

"(B) Within 180 days after the inclusion of any air pollutant in such list, the Administrator shall publish proposed regulations establishing emission standards for such pollutant together with a notice of a pubic hearing within thirty days. Not later than 180 days after such publication, the Administrator shall prescribe an emission standard for such pollutant, unless he finds, on the basis of information presented at such hearings, that such pollutant clearly is not a hazardous air pollutant. The Administrator shall establish any such standard at the level which in his judgment provides an ample margin of safety to protect the public health from such hazardous air pollutant.

"(C) Any emission standard established pursuant to this section shall become effective upon promulgation.

"(2) The Administrator shall, from time to time, issue information on pollution control techniques for air pollutants subject to the provisions of this section.

"(c)(1) After the effective date of any emission standard under this section—

"(A) no person may construct any new source or modify any existing source which, in the Administrator's judgment, will emit an air pollutant to which such standard applies unless the Administrator finds that such source if properly operated will not cause emissions in violation of such standard, and

"(B) no air pollutant to which such standard applies may be emitted from any stationary source in violation of such standard, except that in the case of an existing source—

"(i) such standard shall not apply until 90 days after its effective date, and

"(ii) the Administrator may grant a waiver permitting such source a period of up to two years after the effective date of a standard to comply with the standard, if he finds that such period is necessary for the installation of controls and that steps will be taken during the period of the waiver to assure that the health of persons will be protected from imminent endangerment.

"(2) The President may exempt any stationary source from compliance with paragraph (1) for a period of not more than two years if he finds that the technology to implement such standards is not available and the operation of such source is required for reasons of national security. An exemption under this paragraph may be extended

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for one or more additional periods, each period not to exceed two years. The President shall make a report to Congress with respect to each exemption (or extension thereof) made under this paragraph.

"(d) (1) Each State may develop and submit to the Administrator a procedure for implementing and enforcing emission standards for hazardous air pollutants for stationary sources located in such State. If the Administrator finds the State procedure is adequate, he shall delegate to such State any authority he has under this Act to implement and enforce such standards (except with respect to stationary sources owned or operated by the United States).

"(2) Nothing in this subsection shall prohibit the Administrator from enforcing any applicable emission standard under this section.

"FEDERAL ENFORCEMENT

"SEC. 113. (a) (1) Whenever, on the basis of any information available to him, the Administrator finds that any person is in violation of any requirement of an applicable implementation plan, the Administrator shall notify the person in violation of the plan and the State in which the plan applies of such finding. If such violation extends beyond the 30th day after the date of the Administrator's notification, the Administrator may issue an order requiring such person to comply with the requirements of such plan or he may bring a civil action in accordance with subsection (b).

"(2) Whenever, on the basis of information available to him, the Administrator finds that violations of an applicable implementation plan are so widespread that such violations appear to result from a failure of the State in which the plan applies to enforce the plan effectively, he shall so notify the State. If the Administrator finds such failure extends beyond the 30th day after such notice, he shall give public notice of such finding. During the period beginning with such public notice and ending when such State satisfies the Administrator that it will enforce such plan (hereafter referred to in this section as 'period of federally assumed enforcement'), the Administrator may enforce any requirement of such plan with respect to any person—

"(A) by issuing an order to comply with such requirement, or

"(B) by bringing a civil action under subsection (b).

"(3) Whenever, on the basis of any information available to him, the Administrator finds that any person is in violation of section 111(e) (relating to new source performance standards) or 112(c) (relating to standards for hazardous emissions), or is in violation of any requirement of section 114 (relating to inspections, etc.), he may issue an order requiring such person to comply with such section or requirement, or he may bring a civil action in accordance with subsection (b).

"(4) An order issued under this subsection (other than an order relating to a violation of section 112) shall not take effect until the person to whom it is issued has had an opportunity to confer with the Administrator concerning the alleged violation. A copy of any order issued under this subsection shall be sent to the State air pollution control agency of any State in which the violation occurs. Any order issued under this subsection shall state with reasonable specificity the nature of the violation, specify a time for compliance which the Administrator determines is reasonable, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements. In any case in which an order under this subsection (or notice to a violator under paragraph (1)) is issued to a corporation, a copy of such order (or notice) shall be issued to appropriate corporate officers.

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"(b) The Administrator may commence a civil action for appropriate relief, including a permanent or temporary injunction, whenever any person—

"(1) violates or fails or refuses to comply with any order issued under subsection (a); or

"(2) violates any requirement of an applicable implementation plan during any period of Federally assumed enforcement more than 30 days after having been notified by the Administrator under subsection (a)(1) of a finding that such person is violating such requirement; or

"(3) violates section 111(e) or 112(c); or

"(4) fails or refuses to comply with any requirement of section 114.

Any action under this subsection may be brought in the district court of the United States for the district in which the defendant is located or resides or is doing business, and such court shall have jurisdiction to restrain such violation and to require compliance. Notice of the commencement of such action shall be given to the appropriate State air pollution control agency.

"(c)(1) Any person who knowingly—

"(A) violates any requirement of an applicable implementation plan during any period of Federally assumed enforcement more than 30 days after having been notified by the Administrator under subsection (a)(1) that such person is violating such requirement, or

"(B) violates or fails or refuses to comply with any order issued by the Administrator under subsection (a), or

"(C) violates section 111(e) or section 112(c)

shall be punished by a fine of not more than $25,000 per day of violation, or by imprisonment for not more than one year, or by both. If the conviction is for a violation committed after the first conviction of such person under this paragraph, punishment shall be by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two years, or by both.

"(2) Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Act or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Act, shall upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than six months, or by both.

"INSPECTIONS, MONITORING, AND ENTRY

"SEC. 114. (a) For the purpose (i) of developing or assisting in the development of any implementation plan under section 110 or 111(d), any standard of performance under section 111, or any emission standard under section 112, (ii) of determining whether any person is in violation of any such standard or any requirement of such a plan, or (iii) carrying out section 303—

"(1) the Administrator may require the owner or operator of any emission source to (A) establish and maintain such records, (B) make such reports, (C) install, use, and maintain such monitoring equipment or methods, (D) sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Administrator shall prescribe), and (E) provide such other information as he may reasonably require; and

"(2) the Administrator or his authorized representative, upon presentation of his credentials—

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"(A) shall have a right of entry to, upon, or through any premises in which an emission source is located or in which any records required to be maintained under paragraph (1) of this section are located, and

"(B) may at reasonable times have access to and copy any records, inspect any monitoring equipment or method required under paragraph (1), and sample any emissions which the owner or operator of such source is required to sample under paragraph (1).

"(b)(1) Each State may develop and submit to the Administrator a procedure for carrying out this section in such State. If the Administrator finds the State procedure is adequate, he may delegate to such State any authority he has to carry out this section (except with respect to new sources owned or operated by the United States).

"(2) Nothing in this subsection shall prohibit the Administrator from carrying out this section in a State.

"(c) Any records, reports or information obtained under subsection (a) shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof, (other than emission data) to which the Administrator has access under this section if made public, would divulge methods or processes

entitled to protection as trade secrets of such person, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18 of the United States Code, except that such record, report, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act or when relevant in any proceeding under this Act."

(b) Section 115 of the Clean Air Act (as so redesignated by subsection (a) of this section) is amended as follows:

(1) Strike out the section heading and insert in lieu thereof "ABATEMENT BY MEANS OF CONFERENCE PROCEDURE IN CERTAIN CASES".

(2) Insert "and which is covered by subsection (b) or (c)" after "persons" in subsection (a).

(3) Strike out subsections (b), (c), and (k).

(4) Redesignate subsections (d)(1)(A), (B), and (C) as paragraphs (1), (2), and (3) of subsection (b), respectively.

(5) Insert after subsection (b)(3) (as so redesignated) the following:

"(4) A conference may not be called under this subsection with respect to an air pollutant for which (at the time the conference is called) a national primary or secondary ambient air quality standard is in effect under section 109."

(6) Redesignate subsection (d)(1)(D) as subsection (c), and strike out "subparagraph" each place it appears therein and insert in lieu thereof "subsection".

(7) Redesignate subsections (d)(2) and (d)(3) as subsections (d)(1) and (d)(2), respectively.

(8) Strike out "such conference" in subsection (d)(1) (as so redesignated) and insert in lieu thereof "any conference under this section".

(9) Strike out "under subparagraph (D) of subsection (d)" in subsection (g)(1) and insert in lieu thereof "subsection (c)".

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(10) Add at the end thereof the following new subsection:

"(k) No order or judgment under this section, or settlement, compromise, or agreement respecting any action under this section (whether or not entered or made before the date of enact-

ment of the Clean Air Amendments of 1970) shall relieve any person of any obligation to comply with any requirement of an applicable implementation plan, or with any standard prescribed under section 111 or 112."

(2) Section 103(e) of the Clean Air Act is amended by striking out "section 108(a)" and inserting in lieu thereof "section 115"; and by striking out "subsections (d), (e), and (f) of section 108" and inserting in lieu thereof "subsections (b), (c), (d), (e), and (f) of section 115".

(c) Section 116 of the Clean Air Act (as so redesignated by subsection (a) of this section is amended to read as follows:

"RETENTION OF STATE AUTHORITY

"SEC. 116. Except as otherwise provided in sections 209, 211 (c)(4), and 233 (preempting certain State regulation of moving sources) nothing in this Act shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce (1) any standard or limitation respecting emissions of air pollutants or (2) any requirement respecting control or abatement of air pollution; except that if an emission standard or limitation is in effect under an applicable implementation plan or under section 111 or 112, such State or political subdivision may not adopt or enforce any emission standard or limitation which is less stringent than the standard or limitation under such plan or section."

(d) The Clean Air Act is amended by adding at the end of section 117 (as so redesignated by subsection (a) of this section) the following new subsection:

"(f) Prior to—

"(1) issuing criteria for an air pollutant under section 108(a)(2),

"(2) publishing any list under section 111(b)(1)(A) or 112 (b)(1)(A),

"(3) publishing any standard under section 111(b)(1)(B) or section 112(b)(1)(B), or

"(4) publishing any regulation under section 202(a),

the Administrator shall, to the maximum extent practicable within the time provided, consult with appropriate advisory committees, independent experts, and Federal departments and agencies."

FEDERAL FACILITIES

SEC. 5. Section 118 of the Clean Air Act (as so redesignated by section 4(a) of this Act) is amended to read as follows:

"CONTROL OF POLLUTION FROM FEDERAL FACILITIES

"SEC. 118. Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government (1) having jurisdiction over any property or facility, or (2) engaged in any activity resulting, or which may result, in the discharge of air pollutants, shall 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. The President may exempt any emission source of any department, agency, or instrumentality in the executive branch from compliance with such a requirement if he determines it to be in the paramount interest

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of the United States to do so, except that no exemption may be granted from section 111, and an exemption from section 112 may be granted only in accordance with section 112(c). No such exemption shall be granted due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation. Any exemption shall be for a period not in excess of one year, but additional exemptions may be granted for periods of not to exceed one year upon the President's making a new determination. The President shall report each January to the Congress all exemptions from the requirements of this section granted during the preceding calendar year, together with his reason for granting each such exemption."

MOTOR VEHICLE EMISSION STANDARDS

SEC. 6. (a) Section 202 of the Clean Air Act is amended to read as follows:

"ESTABLISHMENT OF STANDARDS

"SEC. 202. (a) Except as otherwise provided in subsection (b)—

"(1) The Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment causes

or contributes to, or is likely to cause or to contribute to, air pollution which endangers the public health or welfare. Such standards shall be applicable to such vehicles and engines for their useful life (as determined under subsection (d)), whether such vehicles and engines are designed as complete systems or incorporated devices to prevent or control such pollution.

"(2) Any regulation prescribed under this subsection (and any revision thereof) shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period.

"(b)(1)(A) The regulations under subsection (a) applicable to emissions of carbon monoxide and hydrocarbons from light duty vehicles and engines manufactured during or after model year 1975 shall contain standards which require a reduction of at least 90 per centum from emissions of carbon monoxide and hydrocarbons allowable under the standards under this section applicable to light duty vehicles and engines manufactured in model year 1970.

"(B) The regulations under subsection (a) applicable to emissions of oxides of nitrogen from light duty vehicles and engines manufactured during or after model year 1976 shall contain standards which require a reduction of at least 90 per centum from the average of emissions of oxides of nitrogen actually measured from light duty vehicles manufactured during model year 1971 which are not subject to any Federal or State emission standard for oxides of nitrogen. Such average of emissions shall be determined by the Administrator on the basis of measurements made by him.

"(2) Emission standards under paragraph (1), and measurement techniques on which such standards are based (if not promulgated prior to the date of enactment of the Clean Air Amendments of 1970), shall be prescribed by regulation within 180 days after such date.

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"(3) For purposes of this part—

"(A)(i) The term 'model year' with reference to any specific calendar year means the manufacturer's annual production period (as determined by the Administrator) which includes January 1 of such calendar year. If the manufacturer

has no annual production period, the term 'model year' shall mean the calendar year.

"(ii) For the purpose of assuring that vehicles and engines manufactured before the beginning of a model year were not manufactured for purposes of circumventing the effective date of a standard required to be prescribed by subsection (b), the Administrator may prescribe regulations defining 'model year' otherwise than as provided in clause (i).

"(B) The term 'light duty vehicles and engines' means new light duty motor vehicles and new light duty motor vehicle engines, as determined under regulations of the Administrator.

"(4) On July 1 of 1971, and of each year thereafter, the Administrator shall report to the Congress with respect to the development of systems necessary to implement the emission standards established pursuant to this section. Such reports shall include information regarding the continuing effects of such air pollutants subject to standards under this section on the public health and welfare, the extent and progress of efforts being made to develop the necessary systems, the costs associated with development and application of such systems, and following such hearings as he may deem advisable, any recommendations for additional congressional action necessary to achieve the purposes of this Act. In gathering information for the purposes of this paragraph and in connection with any hearing, the provisions of section 307(a) (relating to subpoenas) shall apply.

"(5) (A) At any time after January 1, 1972, any manufacturer may file with the Administrator an application requesting the suspension for one year only of the effective date of any emission standard required by paragraph (1) (A) with respect to such manufacturer. The Administrator shall make his determination with respect to any such application within 60 days. If he determines, in accordance with the provisions of this subsection, that such suspension should be granted, he shall simultaneously with such determination prescribe by regulation interim emission standards which shall apply (in lieu of the standards required to be prescribed by paragraph (1) (A)) to emissions of carbon monoxide or hydrocarbons (or both) from such vehicles and engines manufactured during model year 1975.

"(B) At any time after January 1, 1973, any manufacturer may file with the Administrator an application requesting the

suspension for one year only of the effective date of any emission standard required by paragraph (1)(B) with respect to such manufacturer. The Administrator shall make his determination with respect to any such application within 60 days. If he determines, in accordance with the provisions of this subsection, that such suspension should be granted, he shall simultaneously with such determination prescribe by regulation interim emission standards which shall apply (in lieu of the standards required to be prescribed by paragraph (1)(B)) to emissions of oxides of nitrogen from such vehicles and engines manufactured during model year 1976.

"(C) Any interim standards prescribed under this paragraph shall reflect the greatest degree of emission control which is achievable by application of technology which the Administrator determines is available, giving appropriate consideration to the cost of applying such technology within the period of time available to manufacturers.

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"(D) Within 60 days after receipt of the application for any such suspension, and after public hearing, the Administrator shall issue a decision granting or refusing such suspension. The Administrator shall grant such suspension only if he determines that (i) such suspension is essential to the public interest or the public health and welfare of the United States, (ii) all good faith efforts have been made to meet the standards established by this subsection, (iii) the applicant has established that effective control technology, processes, operating methods, or other alternatives are not available or have not been available for a sufficient period of time to achieve compliance prior to the effective date of such standards, and (iv) the study and investigation of the National Academy of Sciences conducted pursuant to subsection (c) and other information available to him has not indicated that technology, processes, or other alternatives are available to meet such standards.

"(E) Nothing in this paragraph shall extend the effective date of any emission standard required to be prescribed under this subsection for more than one year.

"(c)(1) The Administrator shall undertake to enter into appropriate arrangements with the National Academy of Sciences to conduct a comprehensive study and investigation of the technological feasibility of meeting the emissions standards required

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to be prescribed by the Administrator by subsection (b) of this section.

"(2) Of the funds authorized to be appropriated to the Administrator by this Act, such amounts as are required shall be available to carry out the study and investigation authorized by paragraph (1) of this subsection.

"(3) In entering into any arrangement with the National Academy of Sciences for conducting the study and investigation authorized by paragraph (1) of this subsection, the Administrator shall request the National Academy of Sciences to submit semiannual reports on the progress of its study and investigation to the Administrator and the Congress, beginning not later than July 1, 1971, and continuing until such study and investigation is completed.

"(4) The Administrator shall furnish to such Academy at its request any information which the Academy deems necessary for the purpose of conducting the investigation and study authorized by paragraph (1) of this subsection. For the purpose of furnishing such information, the Administrator may use any authority he has under this Act (A) to obtain information from any person, and (B) to require such person to conduct such tests, keep such records, and make such reports respecting research or other activities conducted by such person as may be reasonably necessary to carry out this subsection.

"(d) The Administrator shall prescribe regulations under which the useful life of vehicles and engines shall be determined for purposes of subsection (a) (1) of this section and section 207. Such regulations shall provide that useful life shall—

"(1) in the case of light duty vehicles and light duty vehicle engines, be a period of use of five years or of fifty thousand miles (or the equivalent), whichever first occurs; and

"(2) in the case of any other motor vehicle or motor vehicle engine, be a period of use set forth in paragraph (1) unless the Administrator determines that a period of use of greater duration or mileage is appropriate.

"(e) In the event a new power source or propulsion system for new motor vehicles or new motor vehicle engines is submitted for certification pursuant to section 206(a), the Administrator may postpone certification until he has prescribed standards for

any air pollutants emitted by such vehicle or engine which cause or contribute to, or are

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likely to cause or contribute to, air pollution which endangers the public health or welfare but for which standards have not been prescribed under subsection (a)."

ENFORCEMENT OF MOTOR VEHICLE EMISSION STANDARDS

SEC. 7. (a)(1) Section 203(a)(1) of the Clean Air Act is amended to read as follows:

"(1) *in the case of a manufacturer of new motor vehicles* or new motor vehicle engines for distribution in commerce, the sale, or the offering for sale, or the introduction, or delivery for introduction, into commerce, or (in the case of any person, except as provided by regulation of the Administrator), the importation into the United States, of any new motor vehicle or new motor vehicle engine, manufactured after the effective date of regulations under this part which are applicable to such vehicle or engine unless such vehicle or engine is covered by a certificate of conformity issued (and in effect) under regulations prescribed under this part (except as provided in subsection (b));"

(2) Section 203(a)(2) of such Act is amended by striking out "section 207" and inserting in lieu thereof "section 208", and by striking out "or" at the end thereof.

(3) Section 203(a)(3) of such Act is amended by striking out the period at the end thereof and inserting in lieu thereof the following: ", or for any manufacturer or dealer knowingly to remove or render inoperative any such device or element of design after such sale and delivery to the ultimate purchaser; or".

(4) Section 203(a) of such Act is amended by inserting at the end thereof the following new paragraph:

"(4) for any manufacturer of a new motor vehicle or new motor vehicle engine subject to standards prescribed under section 202—

"(A) to sell or lease any such vehicle or engine unless such manufacturer has complied with the requirements of section 207 (a) and (b) with respect to such vehicle or engine, and unless a label or tag is affixed to such vehicle or engine in accordance with section 207(c)(3), or

"(B) to fail or refuse to comply with the requirements of section 207 (c) or (e)."

(5) Section 203(b)(1) of such Act is amended by striking out ", or class thereof, from subsection (a)," and inserting in lieu thereof "from subsection (a)", and by striking out "to protect the public health or welfare,".

(6) Section 203(b)(2) of such Act is amended by striking out "importation by a manufacturer" and inserting in lieu thereof "importation or imported by any person".

(7) Section 203 of the Clean Air Act is amended—

(A) by amending subsection (b)(3) to read as follows:

"(3) A new motor vehicle or new motor vehicle engine intended solely for export, and so labeled or tagged on the outside of the container and on the vehicle or engine itself, shall be subject to the provisions of subsection (a), except that if the country of export has emission standards which differ from the standards prescribed under subsection (a), then such vehicle or engine shall comply with the standards of such country of export."; and

(B) by adding at the end thereof the following new subsection:

"(c) Upon application therefor, the Administrator may exempt from section 203(a)(3) any vehicle (or class thereof) manufactured before the 1974 model year from section 203(a)(3) for the purpose of permitting modifications to the emission control device or system

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of such vehicle in order to use fuels other than those specified in certification testing under section 206(a)(1), if the Administrator, on the basis of information submitted by the applicant, finds that such modification will not result in such vehicle or engine not complying with standards under section 202 applicable to such vehicle or engine. Any such exemption shall identify (1) the vehicles so exempted, (2) the specific nature of the modification, and (3) the person or class of persons to whom the exemption shall apply."

(b) Section 204(a) of such Act is amended by striking out "or (3)" and inserting in lieu thereof "(3), or (4)".

(c) Section 205 of such Act is amended to read as follows:

"PENALTIES

"SEC. 205. Any person who violates paragraph (1), (2), (3),

or (4) of section 203(a) shall be subject to a civil penalty of not more than $10,000. Any such violation with respect to paragraph (1), (2), or (4) of section 203(a) shall constitute a separate offense with respect to each motor vehicle or motor vehicle engine."

COMPLIANCE WITH MOTOR VEHICLE EMISSION STANDARDS

SEC. 8. (a) The Clean Air Act is amended by striking out sections 206 and 211; by redesignating sections 207, 208, 209, 210, and 212 as 208, 209, 210, 211, and 213, respectively; and by inserting after section 205 the following new sections:

"MOTOR VEHICLE AND MOTOR VEHICLE ENGINE COMPLIANCE TESTING AND CERTIFICATION

"SEC. 206. (a)(1) The Administrator shall test, or require to be tested in such manner as he deems appropriate, any new motor vehicle or new motor vehicle engine submitted by a manufacturer to determine whether such vehicle or engine conforms with the regulations prescribed under section 202 of this Act. If such vehicle or engine conforms to such regulations, the Administrator shall issue a certificate of conformity upon such terms, and for such period (not in excess of one year), as he may prescribe.

"(2) The Administrator shall test any emission control system incorporated in a motor vehicle or motor vehicle engine submitted to him by any person, in order to determine whether such system enables such vehicle or engine to conform to the standards required to be prescribed under section 202(b) of this Act. If the Administrator finds on the basis of such tests that such vehicle or engine conforms to such standards, the Administrator shall issue a verification of compliance with emission standards for such system when incorporated in vehicles of a class of which the tested vehicle is representative. He shall inform manufacturers and the National Academy of Sciences, and make available to the public, the results of such tests. Tests under this paragraph shall be conducted under such terms and conditions (including requirements for preliminary testing by qualified independent laboratories) as the Administrator may prescribe by regulations.

"(b)(1) In order to determine whether new motor vehicles or new motor vehicle engines being manufactured by a manufacturer do in fact conform with the regulations with respect to which the certificate of conformity was issued, the Administrator is

authorized to test such vehicles or engines. Such tests may be conducted by the Administrator directly or, in accordance with conditions specified by the Administrator, by the manufacturer.

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"(2) (A) (i) If, based on tests conducted under paragraph (1) on a sample of new vehicles or engines covered by a certificate of conformity, the Administrator determines that all or part of the vehicles or engines so covered do not conform with the regulations with respect to which the certificate of conformity was issued, he may suspend or revoke such certificate in whole or in part, and shall so notify the manufacturer. Such suspension or revocation shall apply in the case of any new motor vehicles or new motor vehicle engines manufactured after the date of such notification (or manufactured before such date if still in the hands of the manufacturer), and shall apply until such time as the Administrator finds that vehicles and engines manufactured by the manufacturer do conform to such regulations. If, during any period of suspension or revocation, the Administrator finds that a vehicle or engine actually conforms to such regulations, he shall issue a certificate of conformity applicable to such vehicle or engine.

"(ii) If, based on tests conducted under paragraph (1) on any new vehicle or engine, the Administrator determines that such vehicle or engine does not conform with such regulations, he may suspend or revoke such certificate insofar as it applies to such vehicle or engine until such time as he finds such vehicle or engine actually so conforms with such regulations, and he shall so notify the manufacturer.

"(B) (i) At the request of any manufacturer the Administrator shall grant such manufacturer a hearing as to whether the tests have been properly conducted or any sampling methods have been properly applied, and make a determination on the record with respect to any suspension or revocation under subparagraph (A); but suspension or revocation under subparagraph (A) shall not be stayed by reason of such hearing.

"(ii) In any case of actual controversy as to the validity of any determination under clause (i), the manufacturer may at any time prior to the 60th day after such determination is made file a petition with the United States court of appeals for the circuit wherein such manufacturer resides or has his principal place of business for a judicial review of such determination. A copy of

the petition shall be forthwith transmitted by the clerk of the court to the Administrator or other officer designated by him for that purpose. The Administrator thereupon shall file in the court the record of the proceedings on which the Administrator based his determination, as provided in section 2112 of title 28 of the United States Code.

"(iii) If the petition applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

"(iv) Upon the filing of the petition referred to in clause (ii), the court shall have jurisdiction to review the order in accordance with chapter 7 of title 5, United States Code, and to grant appropriate relief as provided in such chapter.

"(c) For purposes of enforcement of this section, officers or employees duly designated by the Administrator, upon presenting appropriate credentials to the manufacturer or person in charge, are authorized (1) to enter, at reasonable times, any plant or other establishment of such

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manufacturer, for the purpose of conducting tests of vehicles or engines in the hands of the manufacturer, or (2) to inspect at reasonable times, records, files, papers, processes, controls, and facilities used by such manufacturer in conducting tests under regulations of the Administrator. Each such inspection shall be commenced and completed with reasonable promptness.

"(d) The Administrator shall by regulation establish methods and procedures for making tests under this section.

"(e) The Administrator shall announce in the Federal Register and make available to the public the results of his tests of any motor vehicle or motor vehicle engine submitted by a manufacturer under subsection (a) as promptly as possible after the en-

actment of the Clean Air Amendments of 1970 and at the beginning of each model year which begins thereafter. Such results shall be described in such nontechnical manner as will reasonably disclose to prospective ultimate purchasers of new motor vehicles and new motor vehicle engines the comparative performance of the vehicles and engines tested in meeting the standards prescribed under section 202 of this Act.

"COMPLIANCE BY VEHICLES AND ENGINES IN ACTUAL USE

"SEC. 207. (a) Effective with respect to vehicles and engines manufactured in model years beginning more than 60 days after the date of the enactment of the Clean Air Act Amendments of 1970, the manufacturer of each new motor vehicle and new motor vehicle engine shall warrant to the ultimate purchaser and each subsequent purchaser that such vehicle or engine is (1) designed, built, and equipped so as to conform at the time of sale with applicable regulations under section 202, and (2) free from defects in materials and workmanship which cause such vehicles or engines to fail to conform with applicable regulations for its useful life (as determined under section 202(d)).

"(b) If the Administrator determines that (i) there are available testing methods and procedures to ascertain whether, when in actual use throughout its useful life (as determined under section 202(d)), each vehicle and engine to which regulations under section 202 apply complies with the emission standards of such regulations, (ii) such methods and procedures are in accordance with good engineering practices, and (iii) such methods and procedures are reasonably capable of being correlated with tests conducted under section 206(a)(1), then—

"(1) he shall establish such methods and procedures by regulation, and

"(2) at such time as he determines that inspection facilities or equipment are available for purposes of carrying out testing methods and procedures established under paragraph (1), he shall prescribe regulations which shall require manufacturers to warrant the emission control device or system of each new motor vehicle or new motor vehicle engine to which a regulation under section 202 applies and which is manufactured in a model year beginning after the Administrator first prescribes warranty regulations under this paragraph (2). The warranty under such regulations shall run to

the ultimate purchaser and each subsequent purchaser and shall provide that if—

"(A) the vehicle or engine is maintained and operated in accordance with instructions under subsection (c)(3),

"(B) it fails to conform at any time during its useful life (as determined under section 202(d)) to the regulations prescribed under section 202, and

"(C) such nonconformity results in the ultimate purchaser (or any subsequent purchaser) of such vehicle or engine

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having to bear any penalty or other sanction (including the denial of the right to use such vehicle or engine) under State or Federal law,

then such manufacturer shall remedy such nonconformity under such warranty with the cost thereof to be borne by the manufacturer.

"(c) Effective with respect to vehicles and engines manufactured during model years beginning more than 60 days after the date of enactment of the Clean Air Amendments of 1970—

"(1) If the Administrator determines that a substantial number of any class or category of vehicles or engines, although properly maintained and used, do not conform to the regulations prescribed under section 202, when in actual use throughout their useful life (as determined under section 202(d)), he shall immediately notify the manufacturer thereof of such nonconformity, and he shall require the manufacturer to submit a plan for remedying the nonconformity of the vehicles or engines with respect to which such notification is given. The plan shall provide that the nonconformity of any such vehicles or engines which are properly used and maintained will be remedied at the expense of the manufacturer. If the manufacturer disagrees with such determination of nonconformity and so advises the Administrator, the Administrator shall afford the manufacturer and other interested persons an opportunity to present their views and evidence in support thereof at a public hearing. Unless, as a result of such hearing the Administrator withdraws such determination of nonconformity, he shall, within 60 days after the completion of such hearing, order the manufacturer

to provide prompt notification of such nonconformity in accordance with paragraph (2).

"(2) Any notification required by paragraph (1) with respect to any class or category of vehicles or engines shall be given to dealers, ultimate purchasers, and subsequent purchasers (if known) in such manner and containing such information as the Administrator may by regulations require.

"(3) The manufacturer shall furnish with each new motor vehicle or motor vehicle engine such written instructions for the maintenance and use of the vehicle or engine by the ultimate purchaser as may be reasonable and necessary to assure the proper functioning of emission control devices and systems. In addition, the manufacturer shall indicate by means of a label or tag permanently affixed to such vehicle or engine that such vehicle or engine is covered by a certificate of conformity issued for the purpose of assuring achievement of emissions standards prescribed under section 202. Such label or tag shall contain such other information relating to control of motor vehicle emissions as the Administrator shall prescribe by regulation.

"(d) Any cost obligation of any dealer incurred as a result of any requirement imposed by subsection (a), (b), or (c) shall be borne by the manufacturer. The transfer of any such cost obligation from a manufacturer to any dealer through franchise or other agreement is prohibited.

"(e) If a manufacturer includes in any advertisement a statement respecting the cost or value of emission control devices or systems, such manufacturer shall set forth in such statement the cost or value attributed to such devices or systems by the Secretary of Labor (through the Bureau of Labor Statistics). The Secretary of Labor, and his representatives, shall have the same access for this purpose to the books, documents, papers, and records of a manufacturer as the Comptroller General has to those of a recipient of assistance for the purposes of section 311.

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"(f) Any inspection of a motor vehicle or a motor vehicle engine for purposes of subsection (c)(1), after its sale to the ultimate purchaser, shall be made only if the owner of such vehicle or engine voluntarily permits such inspection to be made, except as may be provided by any State or local inspection program."

(b) The amendments made by this section shall not apply to vehicles or engines imported into the United States before the sixtieth day after the date of enactment of this Act.

REGULATION OF FUELS

SEC. 9. (a) Section 211 of the Clean Air Act (as so redesignaed by section 8) is amended to read as follows:

"REGULATION OF FUELS

"SEC. 211. (a) The Administrator may by regulation designate any fuel or fuel additive and, after such date or dates as may be prescribed by him, no manufacturer or processor of any such fuel or additive may sell, offer for sale, or introduce into commerce such fuel or additive unless the Administrator has registered such fuel or additive in accordance with subsection (b) of this section.

"(b) (1) For the purpose of registration of fuels and fuel additives, the Administrator shall require—

"(A) the manufacturer of any fuel to notify him as to the commercial identifying name and manufacturer of any additive contained in such fuel; the range of concentration of any additive in the fuel; and the purpose-in-use of any such additive; and

"(B) the manufacturer of any additive to notify him as to the chemical composition of such additive.

"(2) For the purpose of registration of fuels and fuel additives, the Administrator may also require the manufacturer of any fuel or fuel additive—

"(A) to conduct tests to determine potential public health effects of such fuel or additive (including, but not limited to, carcinogenic, teratogenic, or mutagenic effects), and

"(B) to furnish the description of any analytical technique that can be used to detect and measure any additive in such fuel, the recommended range of concentration of such additive, and the recommended purpose-in-use of such additive, and such other information as is reasonable and necessary to determine the emissions resulting from the use of the fuel or additive contained in such fuel, the effect of such fuel or additive on the emission control performance of any vehicle or vehicle engine, or the extent to which such emissions affect the public health or welfare.

Tests under subparagraph (A) shall be conducted in conformity

with test procedures and protocols established by the Administrator. The result of such tests shall not be considered confidential.

"(3) Upon compliance with the provision of this subsection, including assurances that the Administrator will receive changes in the information required, the Administrator shall register such fuel or fuel additive.

"(c) (1) The Administrator may, from time to time on the basis of information obtained under subsection (b) of this section or other information available to him, by regulation, control or prohibit the manufacture, introduction into commerce, offering for sale, or sale of any fuel or fuel additive for use in a motor vehicle or motor vehicle engine (A) if any emission products of such fuel or fuel additive will endanger the public health or welfare, or (B) if emission products of

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such fuel or fuel additive will impair to a significant degree the performance of any emission control device or system which is in general use, or which the Administrator finds has been developed to a point where in a reasonable time it would be in general use were such regulation to be promulgated.

"(2) (A) No fuel, class of fuels, or fuel additive may be controlled or prohibited by the Administrator pursuant to clause (A) of paragraph (1) except after consideration of all relevant medical and scientific evidence available to him, including consideration of other technologically or economically feasible means of achieving emission standards under section 202.

"(B) No fuel or fuel additive may be controlled or prohibited by the Administrator pursuant to clause (B) of paragraph (1) except after consideration of available scientific and economic data, including a cost benefit analysis comparing emission control devices or systems which are or will be in general use and require the proposed control or prohibition with emission control devices or systems which are or will be in general use and do not require the proposed control or prohibition. On request of a manufacturer of motor vehicles, motor vehicle engines, fuels, or fuel additives submitted within 10 days of notice of proposed rulemaking, the Administrator shall hold a public hearing and publish findings with respect to any matter he is required to consider under this subparagraph. Such findings shall be published at the time of promulgation of final regulations.

"(C) No fuel or fuel additive may be prohibited by the Ad-

ministrator under paragraph (1) unless he finds, and publishes such finding, that in his judgment such prohibition will not cause the use of any other fuel or fuel additive which will produce emissions which will endanger the public health or welfare to the same or greater degree than the use of the fuel or fuel additive proposed to be prohibited.

"(3)(A) For the purpose of evidence and data to carry out paragraph (2), the Administrator may require the manufacturer of any motor vehicle or motor vehicle engine to furnish any information which has been developed concerning the emissions from motor vehicles resulting from the use of any fuel or fuel additive, or the effect of such use on the performance of any emission control device or system.

"(B) In obtaining information under subparagraph (A), section 307(a) (relating to subpenas) shall be applicable.

"(4)(A) Except as otherwise provided in subparagraph (B) or (C), no State (or political subdivision thereof) may prescribe or attempt to enforce, for purposes of motor vehicle emission control, any control or prohibition respecting use of a fuel or fuel additive in a motor vehicle or motor vehicle engine—

"(i) if the Administrator has found that no control or prohibition under paragraph (1) is necessary and has published his finding in the Federal Register, or

"(ii) if the Administrator has prescribed under paragraph (1) a control or prohibition applicable to such fuel or fuel additive, unless State prohibition or control is identical to the prohibition or control prescribed by the Administrator.

"(B) Any State for which application of section 209(a) has at any time been waived under section 209(b) may at any time prescribe and enforce, for the purpose of motor vehicle emission control, a control or prohibition respecting any fuel or fuel additive.

"(C) A State may prescribe and enforce, for purposes of motor vehicle emission control, a control or prohibition respecting the use of a fuel or fuel additive in a motor vehicle or motor vehicle engine if an applicable implementation plan for such State under section 110 so provides. The Administrator may approve such section 110 so

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provides. The Administrator may approve such provision in an

implementation plan, or promulgate an implementation plan containing such a provision, only if he finds that the State control or prohibition is necessary to achieve the national primary or secondary ambient air quality standard which the plan implements.

"(d) Any person who violates subsection (a) or the regulations prescribed under subsection (c) or who fails to furnish any information required by the Administrator under subsection (c) shall forfeit and pay to the United States a civil penalty of $10,000 for each and every day of the continuance of such violation, which shall accrue to the United States and be recovered in a civil suit in the name of the United States, brought in the district where such person has his principal office or in any district in which he does business. The Administrator may, upon application therefor, remit or mitigate any forfeiture provided for in this subsection and he shall have authority to determine the facts upon all such applications."

OTHER AMENDMENTS TO TITLE II

SEC. 10. (a) The first sentence of section 208(b) of the Clean Air Act (as so redesignated by section 8 of this Act) is amended to read as follows: "Any records, reports or information obtained under subsection (a) shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof (other than emission data), to which the Administrator has access under this section if made public, would divulge methods or processes entitled to protection as trade secrets of such person, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18 of the United States Code, except that such record, report, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act or when relevant in any proceeding under this Act."

(b) Section 210 of such Act (as so redesignated by section 8 of this Act) is amended to read as follows:

"STATE GRANTS

"SEC. 210. The Administrator is authorized to make grants to appropriate State agencies in an amount up to two-thirds of the

cost of developing and maintaining effective vehicle emission devices and systems inspection and emission testing and control programs, except that—

"(1) no such grant shall be made for any part of any State vehicle inspection program which does not directly relate to the cost of the air pollution control aspects of such a program;

"(2) no such grant shall be made unless the Secretary of Transportation has certified to the Administrator that such program is consistent with any highway safety program developed pursuant to section 402 of title 23 of the United States Code; and

"(3) no such grant shall be made unless the program includes provisions designed to insure that emission control devices and systems on vehicles in actual use have not been discontinued or rendered inoperative."

(c) Title II of the Clean Air Act is amended by inserting after section 211 (as so redesignated by section 8) the following new section:

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"DEVELOPMENT OF LOW-EMISSION VEHICLES

"SEC. 212. *(a) For the purpose of this section*—

"(1) The term 'Board' means the Low-Emission Vehicle Certification Board.

"(2) The term 'Federal Government' includes the legislative, executive, and judicial branches of the Government of the United States, and the government of the District of Columbia.

"(3) The term 'motor vehicle' means any self-propelled vehicle designed for use in the United States on the highways, other than a vehicle designed or used for military field training, combat, or tactical purposes.

"(4) The term 'low-emission vehicle' means any motor vehicle which—

"(A) emits any air pollutant in amounts significantly below new motor vehicle standards applicable under section 202 at the time of procurement to that type of vehicle; and

"(B) with respect to all other air pollutants meets the new motor vehicle standards applicable under section 202 at the time of procurement to that type of vehicle.

"(5) The term 'retail price' means (A) the maximum statutory price applicable to any class or model of motor vehicle; or (B) in any case where there is no applicable maximum statutory price, the most recent procurement price paid for any class or model of motor vehicle.

"(b) (1) There is established a Low-Emission Vehicle Certification Board to be composed of the Administrator or his designee, the Secretary of Transportation or his designee, the Chairman of the Council on Environmental Quality or his designee, the Director of the National Highway Safety Bureau in the Department of Transportation, the Administrator of General Services, and two members appointed by the President. The President shall designate one member of the Board as Chairman.

"(2) Any member of the Board not employed by the United States may receive compensation at the rate of $125 for each day such member is engaged upon work of the Board. Each member of the Board shall be reimbursed for travel expenses, including per diem in lieu of subsistence as authorized by section 5703 of title 5, United States Code, for persons in the Government service employed intermittently.

"(3) (A) The Chairman, with the concurrence of the members of the Board, may employ and fix the compensation of such additional personnel as may be necessary to carry out the functions of the Board, but no individual so appointed shall receive compensation in excess of the rate authorized for GS–18 by section 5332 of title 5, United States Code.

"(B) The Chairman may fix the time and place of such meetings as may be required, but a meeting of the Board shall be called whenever a majority of its members so request.

"(C) The Board is granted all other powers necessary for meeting its responsibilities under this section.

"(c) The Administrator shall determine which models or classes of motor vehicles qualify as low-emission vehicles in accordance with the provisions of this section.

"(d) (1) The Board shall certify any class or model of motor vehicles—

"(A) for which a certification application has been filed in accordance with paragraph (3) of this subsection;

"(B) which is a low-emission vehicle as determined by the Administrator; and

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"(C) which it determines is suitable for use as a substitute

for a class or model of vehicles at that time in use by agencies of the Federal Government.

The Board shall specify with particularity the class or model of vehicles for which the class or model of vehicles described in the application is a suitable substitute. In making the determination under this subsection the Board shall consider the following criteria:

"(i) the safety of the vehicle;

"(ii) its performance characteristics;

"(iii) its reliability potential;

"(iv) its serviceability;

"(v) its fuel availability;

"(vi) its noise level; and

"(vii) its maintenance costs as compared with the class or model of motor vehicle for which it may be a suitable substitute.

"(2) Certification under this section shall be effective for a period of one year from the date of issuance.

"(3) (A) Any party seeking to have a class or model of vehicle certified under this section shall file a certification application in accordance with regulations prescribed by the Board.

"(B) The Board shall publish a notice of each application received in the Federal Register.

"(C) The Administrator and the Board shall make determinations for the purpose of this section in accordance with procedures prescribed by regulation by the Administrator and the Board, respectively.

"(D) The Administrator and the Board shall conduct whatever investigation is necessary, including actual inspection of the vehicle at a place designated in regulations prescribed under subparagraph (A).

"(E) The Board shall receive and evaluate written comments and documents from interested parties in support of, or in opposition to, certification of the class or model of vehicle under consideration.

"(F) Within 90 days after the receipt of a properly filed certification application, the Administrator shall determine whether such class or model of vehicle is a low-emission vehicle, and within 180 days of such determination, the Board shall reach a decision by majority vote as to whether such class or model of vehicle, having been determined to be a low-emission vehicle, is a suitable

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substitute for any class or classes of vehicles presently being purchased by the Federal Government for use by its agencies.

"(G) Immediately upon making any determination or decision under subparagraph (F), the Administrator and the Board shall each publish in the Federal Register notice of such determination or decision, including reasons therefor and in the case of the Board any dissenting views.

"(e)(1) Certified low-emission vehicles shall be acquired by purchase or lease by the Federal Government for use by the Federal Government in lieu of other vehicles if the Administrator of General Services determines that such certified vehicles have procurement costs which are no more than 150 per centum of the retail price of the least expensive class or model of motor vehicle for which they are certified substitutes.

"(2) In order to encourage development of inherently low-polluting propulsion technology, the Board may, at its discretion, raise the premium set forth in paragraph (1) of this subsection to 200 per centum of the retail price of any class or model of motor vehicle for which a certified low-emission vehicle is a certified substitute, if the Board determines that the certified low-emission vehicle is powered by an inherently low-polluting propulsion system.

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"(3) Data relied upon by the Board and the Administrator in determining that a vehicle is a certified low-emission vehicle shall be incorporated in any contract for the procurement of such vehicle.

"(f) The procuring agency shall be required to purchase available certified low-emission vehicles which are eligible for purchase to the extent they are available before purchasing any other vehicles for which any low-emission vehicle is a certified substitute. In making purchasing selections between competing eligible certified low-emission vehicles, the procuring agency shall give priority to (1) any class or model which does not require extensive periodic maintenance to retain its low-polluting qualities or which does not require the use of fuels which are more expensive than those of the classes or models of vehicles for which it is a certified substitute; and (2) passenger vehicles other than buses.

"(g) For the purpose of procuring certified low-emission vehicles any statutory price limitations shall be waived.

"(h) The Administrator shall, from time to time as the Board

deems appropriate, test the emissions from certified low-emission vehicles purchased by the Federal Government. If at any time he finds that the emission rates exceed the rates on which certification under this section was based, the Administrator shall notify the Board. Thereupon the Board shall give the supplier of such vehicles written notice of this finding, issue public notice of it, and give the supplier an opportunity to make necessary repairs, adjustments, or replacements. If no such repairs, adjustments, or replacements are made within a period to be set by the Board, the Board may order the supplier to show cause why the vehicle involved should be eligible for recertification.

"(i) There are authorized to be appropriated for paying additional amounts for motor vehicles pursuant to, and for carrying out the provisions of, this section, $5,000,000 for the fiscal year ending June 30, 1971, and $25,000,000 for each of the two succeeding fiscal years.

"(j) The Board shall promulgate the procedures required to implement this section within one hundred and eighty days after the date of enactment of the Clean Air Amendments of 1970."

(d) (1) Paragraph (1) of section 213 of the Clean Air Act (as so redesignated by section 8) is amended by inserting "202," immediately before "203".

(2) Paragraph (3) of such section 213 is amended by striking out "The" and inserting in lieu thereof "Except with respect to vehicles or engines imported or offered for importation, the"; and by adding before the period at the end thereof "; and with respect to imported vehicles or engines, such terms mean a motor vehicle and engine, respectively, manufactured after the effective date of a regulation issued under section 202 which is applicable to such vehicle or engine (or which would be applicable to such vehicle or engine had it been manufactured for importation into the United States)".

EMISSION STANDARDS FOR AIRCRAFT

"SEC. 11. (a) (1) Title II of the Clean Air Act is amended by adding at the end thereof the following new part:

"PART B—AIRCRAFT EMISSION STANDARDS

"ESTABLISHMENT OF STANDARDS

"SEC. 231. (a) (1) Within 90 days after the date of enactment of the Clean Air Amendments of 1970, the Administrator shall

commence a study and investigation of emissions of air pollutants from aircraft in order to determine—

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"(A) the extent to which such emissions affect air quality in air quality control regions throughout the United States, and

"(B) The technological feasibility of controlling such emissions.

"(2) Within 180 days after commencing such study and investigation, the Administrator shall publish a report of such study and investigation and shall issue proposed emission standards applicable to emissions of any air pollutant from any class or classes of aircraft or aircraft engines which in his judgment cause or contribute to or are likely to cause or contribute to air pollution which endangers the public health or welfare.

"(3) The Administrator shall hold public hearings with respect to such proposed standards. Such hearings shall, to the extent practicable, to be held in air quality control regions which are most seriously affected by aircraft emissions. Within 90 days after the issuance of such proposed regulations, he shall issue such regulations with such modifications as he deems appropriate. Such regulations may be revised from time to time.

"(b) Any regulation prescribed under this section (and any revision thereof) shall take effect after such period as the Administrator finds necessary (after consultation with the Secretary of Transportation) to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period.

"(c) Any regulations under this section, or amendments thereto, with respect to aircraft, shall be prescribed only after consultation with the Secretary of Transportation in order to assure appropriate consideration for aircraft safety.

"ENFORCEMENT OF STANDARDS

"SEC. 232. (a) The Secretary of Transportation, after consultation with the Administrator, shall prescribe regulations to insure compliance with all standards prescribed under section 231 by the Administrator. The regulations of the Secretary of Transportation shall include provisions making such standards applicable in the issuance, amendment, modification, suspension, or revocation of any certificate authorized by the Federal Aviation Act or

the Department of Transportation Act. Such Secretary shall insure that all necessary inspections are accomplished, and, may execute any power or duty vested in him by any other provision of law in the execution of all powers and duties vested in him under this section.

"(b) In any action to amend, modify, suspend, or revoke a certificate in which violation of an emission standard prescribed under section 231 or of a regulation prescribed under subsection (a) is at issue, the certificate holder shall have the same notice and appeal rights as are prescribed for such holders in the Federal Aviation Act of 1958 or the Department of Transportation Act, except that in any appeal to the National Transportation Safety Board, the Board may amend, modify, or revoke the order of the Secretary or Transportation only if it finds no violation of such standard or regulation and that such amendment, modification, or revocation is consistent with safety in air transportation.

"STATE STANDARDS AND CONTROLS

"SEC. 233. No State or political subdivision thereof may adopt or attempt to enforce any standard respecting emissions of any air pollutant from any aircraft or engine thereof unless such standard is identical to a standard applicable to such aircraft under this part.

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"DEFINITIONS

"SEC. 234. Terms used in this part (other than Administrator) shall have the same meaning as such terms have under section 101 of the Federal Aviation Act of 1958."

(2) Title II of the Clean Air Act is amended—

(A) by striking out "this title" wherever it appears in sections 202 through 213 and inserting in lieu thereof "this part";

(B) by striking out "TITLE II" in the heading for section 213 (as so redesignated by section 8 of this Act) and inserting in lieu thereof "PART A";

(C) by amending the heading for title II to read as follows: "TITLE II—EMISSION STANDARDS FOR MOVING SOURCES"; and

(D) by inserting after section 201 the following:

"PART A—MOTOR VEHICLE EMISSION AND FUEL STANDARDS".

(b) (1) Section 601 of the Federal Aviation Act of 1958 (49 U.S.C. 1421) is amended by adding at the end thereof the following new subsection:

"AVIATION FUEL STANDARDS

"(d) The Administrator shall prescribe, and from time to time revise, regulations (1) establishing standards governing the composition or the chemical or physical properties of any aircraft fuel or fuel additive for the purpose of controlling or eliminating aircraft emissions which the Administrator of the Environmental Protection Agency (pursuant to section 231 of the Clean Air Act) determines endanger the public health or welfare, and (2) providing for the implementation and enforcement of such standards."

(2) Section 610 (a) of such Act (49 U.S.C. 1430(a)) is amended by striking out "and" at the end of paragraph (7); by striking out the period at the end of paragraph (8) and inserting in lieu thereof "; and" and by adding after paragraph (8) the following new paragraph:

"(9) For any person to manufacture, deliver, sell, or offer for sale, any aviation fuel or fuel additive in violation of any regulation prescribed under section 601(d)."

(3) That portion of the table of contents contained in the first section of the Federal Aviation Act of 1958 which appears under the side heading

"Sec. 601. General Safety Powers and Duties."

is amended by adding at the end thereof the following:

"(d) Aviation fuel standards.".

GENERAL PROVISIONS

SEC. 12. (a) The Clean Air Act is amended by redesignating sections 303 through 310 as sections 310 through 317, and by inserting after section 302 the following new sections:

"EMERGENCY POWERS

"SEC. 303. Notwithstanding any other provision of this Act, the Administrator, upon receipt of evidence that a pollution source or combination of sources (including moving sources) is presenting an imminent and substantial endangerment to the health of persons, and that appropriate State or local authorities

have not acted to abate such sources, may bring suit on behalf of the United States in the appropriate United States district court to immediately restrain any person

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causing or contributing to the alleged pollution to stop the emission of air pollutants causing or contributing to such pollution or to take such other action as may be necessary.

"CITIZEN SUITS

"SEC. 304. (a) Except as provided in subsection (b), any person may commence a civil action on his own behalf—

"(1) against any person (including (i) the United States, and (ii) any other governmental instrumentality or agency to the extent permitted by the Eleventh Amendment to the Constitution) who is alleged to be in violation of (A) an emission standard or limitation under this Act or (B) an order issued by the Administrator or a State with respect to such a standard or limitation, or

"(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this Act which is not discretionary with the Administrator.

The district courts shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce such an emission standard or limitation, or such an order, or to order the Administrator to perform such act or duty, as the case may be.

"(b) No action may be commenced—

"(1) under subsection (a) (1)—

"(A) prior to 60 days after the plaintiff has given notice of the violation (i) to the Administrator, (ii) to the State in which the violation occurs, and (iii) to any alleged violator of the standard, limitation, or order, or

"(B) if the Administrator or State has commenced and is diligently prosecuting a civil action in a court of the United States or a State to require compliance with the standard, limitation, or order, but in any such action in a court of the United States any person may intervene as a matter of right.

"(2) under subsection (a) (2) prior to 60 days after the plaintiff has given notice of such action to the Administrator,

except that such action may be brought immediately after such notification in the case of an action under this section respecting a violation of section 112(c)(1)(B) or an order issued by the Administrator pursuant to section 113(a). Notice under this subsection shall be given in such manner as the Administrator shall prescribe by regulation.

"(c)(1) Any action respecting a violation by a stationary source of an emission standard or limitation or an order respecting such standard or limitation may be brought only in the judicial district in which such source is located.

"(2) In such action under this section, the Administrator, if not a party, may intervene as a matter of right.

"(d) The court, in issuing any final order in any action brought pursuant to subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

"(e) Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any emission standard or limitation or to seek any other relief (including relief against the Administrator or a State agency).

"(f) For purposes of this section, the term 'emission standard or limitation under this Act' means—

"(1) a schedule or timetable of compliance, emission limitation, standard of performance or emission standard, or

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"(2) a control or prohibition respecting a motor vehicle fuel or fuel additive,

which is in effect under this Act (including a requirement applicable by reason of section 118) or under an applicable implementation plan.

"APPEARANCE

"SEC. 305. The Administrator shall request the Attorney General to appear and represent him in any civil action instituted under this Act to which the Administrator is a party. Unless the Attorney General notifies the Administrator that he will

appear in such action within a reasonable time, attorneys appointed by the Administrator shall appear and represent him.

"FEDERAL PROCUREMENT

"SEC. 306. (a) No Federal agency may enter into any contract with any person who is convicted of any offense under section 113(c)(1) for the procurement of goods, materials, and services to perform such contract at any facility at which the violation which gave rise to such conviction occurred if such facility is owned, leased, or supervised by such person. The prohibition in the preceding sentence shall continue until the Administrator certifies that the condition giving rise to such a conviction has been corrected.

"(b) The Administrator shall establish procedures to provide all Federal agencies with the notification necessary for the purposes of subsection (a).

"(c) In order to implement the purposes and policy of this Act to protect and enhance the quality of the Nation's air, the President shall, not more than 180 days after enactment of the Clean Air Amendments of 1970 cause to be issued an order (1) requiring each Federal agency authorized to enter into contracts and each Federal agency which is empowered to extend Federal assistance by way of grant, loan, or contract to effectuate the purpose and policy of this Act in such contracting or assistance activities, and (2) setting forth procedures, sanctions, penalties, and such other provisions, as the President determines necessary to carry out such requirement.

"(d) The President may exempt any contract, loan, or grant from all or part of the provisions of this section where he determines such exemption is necessary in the paramount interest of the United States and he shall notify the Congress of such exemption.

"(e) The President shall annually report to the Congress on measures taken toward implementing the purpose and intent of this section, including but not limited to the progress and problems associated with implementation of this section.

"GENERAL PROVISION RELATING TO ADMINISTRATIVE PROCEEDINGS AND JUDICAL REVIEW

"SEC. 307. (a)(1) In connection with any determination under section 110(f) or section 202(b)(5), or for purposes of obtaining

information under section 202(b) (4) or 210(c) (4), the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and he may administer oaths. Except for emission data, upon a showing satisfactory to the Administrator by such owner or operator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes of such owner or operator, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18 of the United States Code,

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except that such paper, book, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act, to persons carrying out the National Academy of Sciences' study and investigation provided for in section 202(c), or when relevant in any proceeding under this Act. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpoena served upon any person under this subparagraph, the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator to appear and produce papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

"(b) (1) A petition for review of action of the Administrator in promulgating any national primary or secondary ambient air quality standard, any emission standard under section 112, any standard of performance under section 111, any standard under section 202 (other than a standard required to be prescribed under section 202(b) (1)), any determination under section 202 (b) (5), any control or prohibition under section 211, or any standard under section 231 may be filed only in the United States Court of Appeals for the District of Columbia. A petition for review of the Administrator's action in approving or promulgating any implementation plan under section 110 or section 111(d) may be filed only in the United States Court of Appeals for the ap-

propriate circuit. Any such petition shall be filed within 30 days from the date of such promulgation or approval, or after such date if such petition is based solely on grounds arising after such *30th day.*

"(2) Action of the Administrator with respect to which review could have been obtained under paragraph (1) shall not be subject to judicial review in civil or criminal proceedings for enforcement.

"(c) In any judicial proceeding in which review is sought of a determination under this Act required to be made on the record after notice and opportunity for hearing, if any party applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as to the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

"MANDATORY LICENSING

"SEC. 308. Whenever the Attorney General determines, upon application of the Administrator—

"(1) that—

"(A) in the implementation of the requirements of section 111, 112, or 202 of this Act, a right under any United States letters patent, which is being used or intended for public or commercial use and not otherwise reasonably available, is necessary to enable any person required to comply with such limitation to so comply, and

"(B) there are no reasonable alternative methods to accomplish such purpose, and

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"(2) that the unavailability of such right may result in a substantial lessening of competition or tendency to create a

monopoly in any line of commerce in any section of the country,

the Attorney General may so certify to a district court of the United States, which may issue an order requiring the person who owns such patent to license it on such reasonable terms and conditions as the court, after hearing, may determine. Such certification may be made to the district court for the district in which the person owning the patent resides, does business, or is found.

"POLICY REVIEW

"SEC. 309. (a) The Administrator shall review and comment in writing on the environmental impact of any matter relating to duties and responsibilities granted pursuant to this Act or other provisions of the authority of the Administrator, contained in any (1) legislation proposed by any Federal department or agency, (2) newly authorized Federal projects for construction and any major Federal agency action (other than a project for construction) to which section 102(2)(C) of Public Law 91–190 applies, and (3) proposed regulations published by any department or agency of the Federal Government. Such written comment shall be made public at the conclusion of any such review.

"(b) In the event the Administrator determines that any such legislation, action, or regulation is unsatisfactory from the standpoint of public health or welfare or environmental quality, he shall publish his determination and the matter shall be referred to the Council on Environmental Quality."

"APPROPRIATIONS

SEC. 13. (a) Section 104(c) of the Clean Air Act is amended to read as follows:

"(c) For the purposes of this section there are authorized to be appropriated $75,000,000 for the fiscal year ending June 30, 1971, $125,000,000 for the fiscal year ending June 30, 1972, and $150,000,000 for the fiscal year ending June 30, 1973. Amounts appropriated pursuant to this subsection shall remain available until expended."

(b) Section 316 of the Clean Air Act (as redesignated by section 12 of this Act) is amended to read as follows:

"APPROPRIATIONS

"SEC. 316. There are authorized to be appropriated to carry

out this Act, other than sections 103, (f)(3) and (d), 104, 212, and 403, $125,000,000 for the fiscal year ending June 30, 1971, $225,000,000 for the fiscal year ending June 30, 1972, and $300,000,000 for the fiscal year ending June 30, 1973."

SEC. 14. The Clean Air Act is amended by adding at the end thereof a new title to read as follows:

"TITLE IV—NOISE POLLUTION

"SEC. 401. This title may be cited as the 'Noise Pollution and Abatement Act of 1970'.

"SEC. 402. (a) The Administrator shall establish within the Environmental Protection Agency an Office of Noise Abatement and Control,

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and shall carry out through such Office a full and complete investigation and study of noise and its effects on the public health and welfare in order to (1) identify and classify causes and sources of noise, and (2) determine—

"(A) effects at various levels;

"(B) projected growth of noise levels in urban areas through the year 2000;

"(C) the psychological and physiological effect on humans;

"(D) effects of sporadic extreme noise (such as jet noise near airports) as compared with constant noise;

"(E) effect on wildlife and property (including values);

"(F) effect of sonic booms on property (including values); and

"(G) such other matters as may be of interest in the public welfare.

"(b) In conducting such investigation, the Administrator shall hold public hearings, conduct research, experiments, demonstrations, and studies. The Administrator shall report the results of such investigation and study, together with his recommendations for legislation or other action, to the President and the Congress not later than one year after the date of enactment of this title.

"(c) In any case where any Federal department or agency is carrying out or sponsoring any activity resulting in noise which the Administrator determines amounts to a public nuisance or is otherwise objectionable, such department or agency shall consult

with the Administrator to determine possible means of abating such noise.

"SEC. 403. There is authorized to be appropriated such amount, not to exceed $30,000,000, as may be necessary for the purposes of this title."

TECHNICAL AND CONFORMING AMENDMENTS

SEC. 15. (a) (1) Section 302 of the Clean Air Act is amended by striking out subsection (g) and inserting in lieu thereof the following:

"(g) The term 'air pollutant' means an air pollution agent or combination of such agents.

"(h) All language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being."

(2) Section 103(c) of the Clean Air Act is amended by striking out "air pollution agents (or combinations of agents)" and inserting in lieu thereof "air pollutants".

(b) (1) Subject to such requirements as the Civil Service Commission may prescribe, any commissioned officer of the Public Health Service (other than an officer who retires under section 211 of the Public Health Service Act after his election but prior to his transfer pursuant to this paragraph and paragraph (2)) who, upon the day before the effective date of Reorganization Plan Numbered 3 of 1970 (hereinafter in this subsection referred to as the "plan"), is serving as such officer (A) primarily in the performance of functions transferred by such plan to the Environmental Protection Agency or its Administrator (hereinafter in this subsection referred to as the "Agency" and the "Administrator", respectively), may, if such officer so elects, acquire competitive status and be transferred to a competitive position in the Agency; or (B) primarily in the performance of functions determined by the Secretary of Health, Education, and Welfare (hereinafter in this subsection referred to as the "Secretary") to be materially related to the functions so transferred, may, if authorized by agreement between the Secretary and the Administrator, and if such officer so elects, acquire such status and be so transferred.

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(2) An election pursuant to paragraph (1) shall be effective only if made in accordance with such procedures as may be prescribed by the Civil Service Commission (A) before the close of the 24th month after the effective date of the plan, or (B) in the case of a commissioned officer who would be liable for training and service under the Military Selective Service Act of 1967 but for the operation of section 6(b)(3) thereof (50 U.S.C. App. 456(b)(3)), before (if it occurs later than the close of such 24th month) the close of the 90th day after the day upon which he has completed his 24th month of service as such officer.

(3) (A) Except as provided in subparagraph (B), any commissioned officer of the Public Health Service who, pursuant to paragraphs (1) and (2), elects to transfer to a position in the Agency which is subject to chapter 51 and subchapter III of chapter 53 of title 5, United States Code (hereinafter in this subsection referred to as the "transferring officer"), shall receive a pay rate of the General Schedule grade of such position which is not less than the sum of the following amounts computed as of the day preceding the date of such election:

(i) the basic pay, the special pay, the continuation pay, and the subsistence and quarters allowances, to which he is annually entitled as a commissioned officer of the Public Health Service pursuant to title 37, United States Code;

(ii) the amount of Federal income tax, as determined by estimate of the Secretary, which the transferring officer, had he remained a commissioned officer, would have been required to pay on his subsistence and quarters allowances for the taxable year then current if they had not been tax free;

(iii) an amount equal to the biweekly average cost of the coverages designated "high option, self and family" under the Government-wide Federal employee health benefits program plans, multiplied by twenty-six; and

(iv) an amount equal to 7 per centum of the sum of the amounts determined under clauses (i) through (iii), inclusive.

(B) A transferring officer shall in no event receive, pursuant to subparagraph (A), a pay rate in excess of the maximum rate applicable under the General Schedule to the class of position, as established under chapter 51 of title 5, United States Code, to which such officer is transferred pursuant to paragraphs (1) and (2).

(4) (A) A transferring officer shall be credited, on the day of

his transfer pursuant to his election under paragraphs (1) and (2), with one hour of sick leave for each week of active service, as defined by section 211(d) of the Public Health Service Act.

(B) The annual leave to the credit of a transferring officer on the day before the day of his transfer, shall, on such day of transfer, be transferred to his credit in the Agency on an adjusted basis under regulations prescribed by the Civil Service Commission. The portion of such leave, if any, that is in excess of the sum of (i) 240 hours, and (ii) the number of hours that have accrued to the credit of the transferring officer during the calendar year then current and which remain unused, shall thereafter remain to his credit until used, and shall be reduced in the manner described by subsection (c) of section 6304 of title 5, United States Code.

(5) A transferring officer who is required to change his official station as a result of his transfer under this subsection shall be paid such travel, transportation, and related expenses and allowances, as would be provided pursuant to subchapter II of chapter 57 of title 5, United States Code, in the case of a civilian employee so transferred in the interest of the Government. Such officer shall not (either at the time of such transfer or upon a subsequent separation from the competitive service) be deemed to have separated from, or changed permanent

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station within, a uniformed service for purposes of section 404 of title 37, United States Code.

(6) Each transferring officer who prior to January 1, 1958, was insured pursuant to the Federal Employees' Group Life Insurance Act of 1954, and who subsequently waived such insurance, shall be entitled to become insured under chapter 87 of title 5, United States Code, upon his transfer to the Agency regardless of age and insurability.

(7)(A) Effective as of the date a transferring officer acquires competitive status as an employee of the Agency, there shall be considered as the civilian service of such officer for all purposes of chapter 83, title 5, United States Code, (i) his active service as defined by section 211(d) of the Public Health Service Act, or (ii) any period for which he would have been entitled, upon his retirement as a commissioned officer of the Public Health Service, to receive retired pay pursuant to section 211(a)(4)(B) of such Act; however, no transferring officer may become entitled to

benefits under both subchapter III of such chapter and title II of the Social Security Act based on service as such a commissioned officer performed after 1956, but the individual (or his survivors) may irrevocably elect to waive benefit credit for the service under one such law to secure credit under the other.

(B) A transferring officer on whose behalf a deposit is required to be made by subparagraph (C) and who, after transfer to a competitive position in the Agency under paragraphs (1) and (2), is separated from Federal service or transfers to a position not covered by subchapter III of chapter 83 of title 5, United States Code, shall not be entitled, nor shall his survivors be entitled, to a refund of any amount deposited on his behalf in accordance with this section. In the event he transfers, after transfer under paragraphs (1) and (2), to a position covered by another Government staff requirement system under which credit is allowable for service with respect to which a deposit is required under subparagraph (C), no credit shall be allowed under such subchapter III with respect to such service.

(C) The Secretary shall deposit in the Treasury of the United States to the credit of the Civil Service Retirement and Disability Fund, on behalf of and to the credit of such transferring officer, an amount equal to that which such individual would be required to deposit in such fund to cover the years of service credited to him for purposes of his retirement under subparagraph (A), had such service been service as an employee as defined in section 8331(1) of title 5, United States Code. The amount so required to be deposited with respect to any transferring officer shall be computed on the basis of the sum of each of the amounts described in paragraph (3)(A) which were received by, or accrued to the benefit of, such officer during the year so credited. The deposits which the Secretary is required to make under this subparagraph with respect to any transferring officer shall be made within two years after the date of his transfer as provided in paragraphs (1) and (2), and the amounts due under this subparagraph shall include interest computed from the period of service credited to the date of payment in accordance with section 8334(e) of title 5, United States Code.

(8)(A) A commissioned officer of the Public Health Service who, upon the day before the effective date of the plan, is on active service therewith primarily assigned to the performance of functions described in paragraph (1)(A), shall, while he remains in active service, as defined by section 211(d) of the Public Health

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Service Act, be assigned to the performance of duties with the Agency, except as the Secretary and the Administrator may jointly otherwise provide.

(B) Paragraph (2) of section 6(a) of the Military Selective Service Act of 1967 (50 U.S.C. App. 456(a)(2)) is amended by inserting "the Environmental Protection Agency," after "Department of Justice,".

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(c)(1) Section 302(a) of the Clean Air Act is amended to read as follows:

"(a) The term 'Administrator' means the Administrator of the Environmental Protection Agency."

(2) The Clean Air Act is amended by striking out "Secretary" wherever it appears (except in reference to the Secretary of a department other than the Department of Health, Education, and Welfare and inserting in lieu thereof "Administrator"; by striking out "Secretary of Health, Education, and Welfare" wherever it appears, and inserting in lieu thereof "Administrator"; and by striking out "Department of Health, Education, and Welfare" wherever it appears, and inserting in lieu thereof "Environmental Protection Agency".

SAVINGS PROVISIONS

SEC. 16. (a)(1) Any implementation plan adopted by any State and submitted to the Secretary of Health, Education, and Welfare, or to the Administrator pursuant to the Clean Air Act prior to enactment of this Act may be approved under section 110 of the Clean Air Act (as amended by this Act) and shall remain in effect, unless the Administrator determines that such implementation plan, or any portion thereof, is not consistent with the applicable requirements of the Clean Air Act (as amended by this Act) and will not provide for the attainment of national primary ambient air quality standards in the time required by such Act. If the Administrator so determines, he shall, within 90 days after promulgation of any national ambient air quality standards pursuant to section 109(a) of the Clean Air Act, notify the State and specify in what respects changes are needed to meet the additional requirements of such Act, including requirements to implement national secondary ambient air quality standards. If such changes are not adopted by the State after public hearings and within six months after such notification, the Administrator

shall promulgate such changes pursuant to section 110(c) of such Act.

(2) The amendments made by section 4(b) shall not be construed as repealing or modifying the powers of the Administrator with respect to any conference convened under section 108(d) of the Clean Air Act before the date of enactment of this Act.

(b) Regulations or standards issued under title II of the Clean Air Act prior to the enactment of this Act shall continue in effect until revised by the Administrator consistent with the purposes of such Act.

Approved December 31, 1970.

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1.1(k)(1) HOUSE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

H.R. REP. No. 91–1146, 91st Cong., 2d Sess. (1970)

CLEAN AIR ACT AMENDMENTS OF 1970

JUNE 3, 1970.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. STAGGERS, from the Committee on Interstate and Foreign Commerce, submitted the following

REPORT

[To accompany H.R. 17255]

The Committee on Interstate and Foreign Commerce, to whom was referred the bill (H.R. 17255) to amend the Clean Air Act to provide for a more effective program to improve the quality of the Nation's air, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

The amendment is as follows:

The amendment strikes out all after the enacting clause and inserts in lieu thereof a substitute which appears in the reported bill in italic type.

PURPOSE OF LEGISLATION

The purpose of the legislation reported unanimously by your committee is to speed up, expand, and intensify the war against air pollution in the United States with a view to assuring that the air we breathe throughout the Nation is wholesome once again. The Air Quality Act of 1967 (Public Law 90–148) and its predecessor acts have been instrumental in starting us off in this direction. A review of achievements to date, however, make abundantly clear that the strategies which we have pursued in the war against air pollution have been inadequate in several important respects, and the methods employed in implementing those strategies often have been slow and less effective than they might have been.

SUMMARY OF PROVISIONS AND COMPARISON WITH EXISTING LAW

(*1*) *National ambient air quality standards*

The Secretary of HEW will be authorized and directed to establish nationwide ambient air quality standards. The States will be left free to establish stricter standards for all or part of their geographic areas. Under present law, ambient air quality stand-

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ards are to be adopted by the States on the basis of criteria set forth by the Secretary.

By authorizing the Secretary to establish nationwide standards based on the criteria developed by him for various pollutants, the war against air pollution will be carried on throughout the Nation rather than only in particular geographical areas. Furthermore, unless a State desires to set stricter standards, the time that would be consumed by such States in adopting ambient air quality standards will be saved.

(*2*) *Air quality control regions*

Each State is declared by law an air quality region. However, the Secretary is authorized to establish interstate air quality regions for the purpose of dealing with air pollution problems of an interstate nature. Existing interstate regions remain in effect.

Under present law, the Secretary is directed to establish air quality control regions but only a few such regions have been established thus far. Consequently, actual air pollution enforcement activities have been delayed excessively. Additionally, the

proposed regions are not contiguous and, therefore, do not cover the entire United States.

By making each State area an air quality region, the time consumed in establishing such regions on a selective basis will be saved. By dividing the entire United States into contiguous air quality regions, the war against pollution will be carried into every part of the United States.

For the five pollutants for which the Secretary already has established criteria,[1] proposed national standards would be issued within 30 days after the date of enactment of this legislation. With regard to other pollutants such standards would be proposed within 30 days after the criteria have been issued.

(*3*) *Revision of implementation and enforcement provisions*

Within 60 days after promulgation of national ambient air quality standards, the Governor of a State may file a letter of intent that such State will, within 180 days and after public hearings, adopt a plan for the implementation (principally by prescribing appropriate emission standards) and enforcement of such standards. A State may adopt more stringent ambient air quality standards, and the Secretary may extend the 180-day time period for good cause shown but not to exceed an additional 180 days.

If a State fails to file a letter of intent or does not adopt a plan or adopts a plan which does not meet the statutory requirements, then after reasonable notice, the Secretary may publish proposed regulations setting forth a State plan. The State within 30 days either may adopt such plan or may petition for a public hearing. The Secretary must give at least 30 days notice of such hearing. Within 60 days after the hearing, the Secretary shall, on the basis of the evidence presented at such hearing, promulgate either the original or a modified plan.

If as a result of a State's failure to enforce its plan ambient air quality standards are not met, the Secretary is to notify the State and persons who violate the plan. If the State fails to act within 30 days the Secretary may request the Attorney General to bring suit to secure abatement of the pollution. The court may assess

[1] These pollutants are: (1) sulfur oxides, (2) particulate matter, (3) carbon monoxide, (4) hydrocarbons, and (5) photochemical oxidants.

a penalty of up to $10,000 for each day during which any person fails to take action ordered by the Secretary to abate the pollution.

The Secretary may inspect any establishment for the purpose of determining whether the State plan is enforced or whether the establishment contributes to or fails to take required action to abate pollution.

Under existing law, procedures are more complex and more time-consuming, and no authority is provided for the Secretary to inspect establishments.

(4) *Federal emission standards for new stationary sources*

The Secretary is authorized and directed to establish Federal emission standards for new stationary sources where emissions from such sources are extremely hazardous or where such emissions contribute substantially to the endangerment of the public health or welfare. The purpose of this new authority is to prevent the occurrence anywhere in the United States of significant new air pollution problems arising from such sources either because they generate extra-hazardous pollutants or because they are large-scale polluters.

At present emission standards for stationary sources are established exclusively by the States.

The promulgation of Federal emission standards for new sources in the aforementioned categories will preclude efforts on the part of States to compete with each other in trying to attract new plants and facilities without assuring adequate control of extra-hazardous or large-scale emissions therefrom.

Such emission standards may be enforced either by a State as part of that State's plan or by the Secretary if a State fails to include such standards within its plan. The provisions for court actions to secure abatement and the imposition of penalties are comparable to the provisions described under (3) above.

(5) *Automotive emission control—Motor vehicle testing and certification*

The Secretary is authorized and directed to test, or require to be tested in such manner as he deems appropriate, any new motor vehicle or motor vehicle engine as it comes off the assembly line in order to determine whether the vehicle or engine conforms with the applicable emission standards. Such tests are in addition to testing the prototypes furnished by the automobile manufacturers for purposes of securing certificates of conformity. On the basis of the assembly line testing, the Secretary may suspend or revoke any such certificate in whole or in part. Hearings on the record are to be conducted by the Secretary at the request of any

manufacturer who desires to challenge the Secretary's decision to suspend or revoke a certificate, but such hearings shall not stay the suspension or revocation. Determinations made by the Secretary on the basis of such hearings are subject to judicial review.

Experience has shown that the testing and certification of prototypes does not of itself assure that automobiles coming off the assembly line which are sold to the public comply with the Federal emission standards. Therefore, the legislation authorizes inspection of assembly plants and the testing of auotmobiles and engines coming off the assembly line.

Additionally, the legislation provides that States must require inspection of motor vehicles in actual use if the Secretary, after consultation with the State, determines that the achievement of ambient

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air quality standards requires such inspection and that such inspection is technologically and economically feasible.

Your committee is aware that low-cost, easily operated instrumentation techniques for such inspections are not available at present. Since automobiles account for 60 percent of the air pollution problem in the United States and since new antipollution devices must be developed and installed on automobiles to meet more stringent emission standards, it will be necessary also to develop more effective measuring devices to make possible inexpensive and efficient tests.

The Secretary, therefore, is directed to conduct research and development activities with respect to low-cost instrumentation techniques to facilitate the measuring of automotive emissions. The Secretary is directed to report to the Congress his recommendations for testing programs to assure that emission standards are met during the life of vehicles and engines.

(6) Standards for automotive and other fuels

The Secretary is authorized to establish limitations on (or providing for elimination of) ingredients of fuels (including additives) which endanger the public health or welfare or which impair the performance of emission control devices or systems on automobiles. Before imposing such limitations the Secretary is required to make certain specific findings as to the necessity of the imposition of such limitations.

Present law does not authorize the imposition of such limitations on automotive or other fuels.

(7) Aircraft emission standards

The Secretary of Health, Education, and Welfare is authorized and directed to establish, after consultation regarding safety aspects with the Federal Aviation Administrator, emission standards for aircraft and aircraft engines. Such standards would be enforced by the Administrator in the certification and inspection of aircraft or aircraft engines pursuant to his authority under the Federal Aviation Act of 1958. The Administrator would also be authorized to prescribe standards governing the composition of any aircraft fuel or fuel additive for the purpose of achieving the aircraft emission standards established by the Secretary of Health, Education, and Welfare. The authority of the Secretary to establish emission standards would preempt State authority to establish or enforce any aircraft emission standards.

Under present law the Secretary does not have such authority to establish such standards although the aircraft industry has voluntarily agreed to abate smoke emissions.

(8) Pollution from Federal facilities

The legislation directs Federal agencies in the executive, legislative and judicial branches to comply with applicable Federal, State, interstate, and local emission standards. The Secretary is authorized to exempt any facility on a year by year basis. The Secretary is to report each January to the Congress all exemptions granted during the preceding calendar year, together with the reason for granting each such exemption.

Instead of exercising leadership in controlling or eliminating air pollution the Federal Government has tended to be slow in this respect. The foregoing provisions are designed to reverse this tendency.

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The level of appropriations available for the modification of Federal facilities to eliminate or reduce air pollution has been inadequate. The Committee hopes that the Administration will seek and the Congress will provide adequate appropriations to remedy this unfortunate situation.

(9) Extension of authorizations

The bill authorizes appropriations for the fiscal year 1971, totaling $200 million, for the fiscal year 1972, $250 million, and

for the fiscal year 1973, $325 million. Of these amounts, $75 million for 1971, $100 million for 1972, and $125 million for 1973 are earmarked for research relating to controlling pollution resulting from the combustion of fuels. These authorizations constitute a substantial increase over and above the level of appropriations authorized during the preceding years. The highest amount authorized for any one fiscal year (fiscal year 1969) was $185 million.

NEED FOR LEGISLATION

Air pollution continues to be a threat to the health and well-being of the American people. While a start has been made in controlling air pollution since the enactment of the Air Quality Act of 1967, progress has been regrettably slow. This has been due to a number of factors: (1) cumbersome and time-consuming procedures called for under the 1967 act; (2) inadequate funding on Federal, State, and local levels; (3) scarcity of skilled personnel to enforce control measures; (4) inadequacy of available test and control technologies; (5) organizational problems on the Federal level where air pollution control has not been accorded a sufficiently high priority, and (6) last, but not least, failure on the part of the National Air Pollution Control Administration to demonstrate sufficient aggressiveness in implementing present law.

On the other hand, the picture is not entirely bleak. Citizens and officials on the grassroot level throughout the United States have become seriously aroused over the threat of air pollution to health and well-being and they are anxious to have stringent controls imposed and enforced effectively at the earliest possible date. It is also important to note that some industries have become aware of the need for effective pollution control measures. This ground swell is important if we are to secure clean air everywhere in the United States, and it is important that this momentum not be lost. Therefore, it is urgent that Congress adopt new clean air legislation which will make possible the more expeditious imposition of specific emission standards both for mobile and stationary sources and the effective enforcement of such standards by both State and Federal agencies.

The imposition of national ambient air quality standards and declaring each State as an air quality control region are steps aimed towards the achievement of those objectives. Effective pol-

lution control requires both reduction of present pollution and prevention of new significant pollution problems.

Therefore, particular attention must be given to new stationary sources which are known to be either particularly large-scale polluters or where the pollutants are extra hazardous. The legislation, therefore, grants authority to the Secretary of Health, Education, and Welfare to establish emission standards for any such sources which either in the form of entire new facilities or in the form of expanded or modified

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facilities, or because of expanded or modified operations or capacity, constitute new sources of substantially increased pollution.

Automotive pollution constitutes in excess of 60 percent of our national air pollution problem and such pollution is particularly dangerous in the highly urbanized areas of our country. Therefore, increased attention must be paid to that source of pollution by insisting on the kinds of motor vehicles and fuels which will reduce pollution to minimal levels. The committee hopes that the automobile manufacturers will not limit their choice of antipollution devices to those developed by them in-house, and that the two great industries—automobile manufacturers and automotive fuel producers—will join hands to develop the most effective technologies. The Government is not particularly well equipped to design cars or to determine the composition of fuels appropriate towards these ends. However, Congress would be derelict if it did not vest in the Government appropriate residual authority with regard to vehicles and fuels to make the necessary decisions should members of these industries fail to do so on their own.

The legislation, therefore, provides for more stringent testing of automobiles. Such testing is not limited, as heretofore, to the testing of prototypes. Such testing will continue but the tests should require each prototype rather than the average of prototypes to comply with regulations establishing emission standards.

In addition to prototype testing, daily testing either on a sampling or car-by-car basis will be required of vehicles as they come off the assembly lines. If such tests raise reasonable questions of compliance with applicable emission standards, the Secretary may suspend or revoke the certificate. He may, however, issue certificates for those cars which actually comply with the regulations in effect at that time.

The manufacturers must warrant that the vehicles have control

systems or devices substantially of the same construction as the systems and devices on the prototype vehicles for which a certificate has been issued. Labels or tags must be permanently affixed to the vehicles or engines that are covered by a certificate. Such labels or tags must contain such additional information as the Secretary may prescribe.

In authorizing the Secretary to prescribe limitations for automotive fuel ingredients, the committee has conditioned the Secretary's authority by requiring specific findings based on specified evidence. The committee has done this for the purpose of assuring that such limitations will not be imposed lightly if other equally satisfactory alternatives are available.

SECTION-BY-SECTION ANALYSIS

Section 1. Sets forth the title: "Clean Air Act Amendments of 1970"

Sec. 2. National ambient air quality standards

Subsection (a) of this section adds a new subsection (e) to section 107 of the Clean Air Act. Under existing law, the States are given an opportunity, after the Secretary issues air quality criteria,[1] to establish ambient air quality standards. The new

[1] Air quality criteria published by the Secretary according to existing law are to reflect accurately the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on health and welfare which may be expected from the presence of an air pollution agent, or combination of agents in the ambient air, in varying quantity. (Sec. 107(b)(2)). Additionally the Secretary is to publish information on those recommended pollution control techniques, the application of which is necessary to achieve levels of air quality set forth in the criteria. Such information shall include technical data relating to the technology and costs of emission control (section 107(c)).

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section 107(e) directs the Secretary of Health, Education, and Welfare to establish nationally applicable ambient air quality standards for any pollutant or combination of pollutants for which he has issued air quality criteria. (Section 4, however, authorizes any State to establish more stringent standards.)

Proposed national ambient air quality standards are to be established within 30 days after the enactment of this legislation for any pollutant or combination of pollutants for which the Secretary has issued air quality criteria. Such criteria have been issued for the following five pollutants:

1. Sulfur oxide.
2. Particulate matter.

3. Carbon monoxide.
4. Hydrocarbons.
5. Photochemical oxidants.

For any pollutant or combination of pollutants with regard to which the Secretary will issue criteria in the future, he is directed to publish proposed ambient air quality standards within 30 days after the issuance of such criteria.

Upon publication by the Secretary of the proposed standards, interested parties are allowed a reasonable time for comments thereon. After considering the comments and other relevant information, the Secretary is directed to promulgate the standards with such modifications as he deems appropriate. From time to time thereafter, the Secretary may revise such standards.

Section 2(b) of the bill makes conforming amendments to sections 107(c), 109, and 306 of the Clean Air Act.

Sec. 3. Air quality control regions

Subsection (a) of this section amends section 107(a) of the Clean Air Act to constitute each State as an air quality control region. It also authorizes the Secretary, after consultation with appropriate State and local authorities, to designate as an (interstate) air quality control region any area consisting of all or part of more than one State where the Secretary determines that the establishment of such region is necessary to deal with interstate air pollution problems. Interstate air quality control regions established prior to the enactment of this legislation continue to be considered air quality control regions.

Subsection (b) repeals section 106 of the Clean Air Act which authorized the Secretary to provide Federal financial assistance for the planning costs of interstate air pollution control agencies, and to establish interstate air quality planning commissions.

Sec. 4. Revision of implementation and enforcement provisions

Subsection (a) of this section amends section 108(c) of the Clean Air Act to revise the procedures for implementing and enforcing ambient air quality standards, which will be set by the Secretary under the bill rather than by the States as under existing law. The procedure which would be followed under the legislation in implementing and enforcing each national ambient air quality standard would be as follows:

Sec. 108(c)(1) of Act. If the Governor of the State files a letter of intent that such State will adopt a plan for the implementa-

tion, maintenance, and enforcement of the standard, and if the State

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adopts such a plan, such plan will be applied in such State, if the Secretary determines that—

(1) the State plan assures achieving such standard within a reasonable time;

(2) adequate authority for the plan's enforcement is provided;

(3) such plan makes appropriate provisions for intergovernmental cooperation including provisions for dealing with interstate air pollution problems within any interstate air quality control region; and

(4) such plan contains adequate provision for revision from time to time to take account of improved or more expeditious methods of achieving the standards.

The State must file its letter of intent within 60 days of the adoption of the national ambient air quality standard, and must adopt its plan within 180 days of filing the letter of intent, except that for good cause shown the Secretary may extend the 180 day period by up to 180 additional days. Reasonable notice must be given of, and public hearings held on, any proposed plan. A State may adopt an ambient air quality standard applicable to such State, or any portion thereof, which is more stringent than the national ambient air quality standards for any pollutant.

If the Secretary determines, after consultation with the State, that the achievement of air quality standards requires inspection of motor vehicles in actual use and that such inspection is technologically and economically feasible, the State is required to revise its plan to provide for such inspection. If a State fails within 60 days after notification by the Secretary or such longer period as the Secretary may prescribe to revise its plan in order to provide for inspection of motor vehicles in actual use as required by the preceding sentence, or in order to take account of improved or more expeditious methods of achieving ambient air quality standards, then such State shall be regarded as not having a plan. Any revised State plan which the Secretary determines is consistent with the requirement of section 108(c)(1) of the act shall be the plan applicable to such State.

Sec. 108(c)(2) of the Act. If a State does not file a letter of intent or does not have a plan which meets the requirements of

section 108(c) (1) of the act, the Secretary may, after reasonable notice, publish proposed regulations setting forth a plan which would be applicable to such State. If, within 30 days after publication, the State has not adopted the plan prepared by the Secretary or has not filed a petition for public hearings on such proposed plan, then the Secretary shall promulgate such plan which thereupon becomes applicable to such State.

Sec. 108(c) (3) of the Act. If the Governor of a State petitions the Secretary for a hearing, the Secretary is directed to call a public hearing for the purpose of receiving testimony from State and local air pollution control agencies and other interested parties affected by the proposed regulations. The hearing is to be held in or near one or more of the places where the plan will take effect. Notice of such hearing is to be published in the Federal Register and given to interested parties at least 30 days prior to the date of such hearings.

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The Secretary is directed to make findings within 60 days on the basis of the evidence presented in such hearings as to whether the proposed plan should be modified. If the Secretary determines no modification is necessary, the plan shall take effect. If he determines modifications are necessary, he is directed to promulgate revised regulations setting forth a modified plan which will become effective immediately upon promulgation.

Sec. 108 (c)(4) of the Act. Whenever the Secretary finds that as a result of the failure of a State to enforce the plan applicable to such State, any ambient air quality standard is not met, the Secretary is directed to notify the affected State or States, persons not in compliance with the plan and other interested parties. If the failure of the State to take action extends beyond the 30 days after the Secretary's notification, the Secretary may request the Attorney General to bring a suit on behalf of the United States in the appropriate U.S. district court to secure abatement of the pollution. The court may enter such judgment and orders as it deems necessary in the public interest and the equities of the case. In so doing the court must give due consideration to the practicability and to the technological and economic feasibility of complying with the provisions of the plan. The court may also assess a penalty of up to $10,000 for each day for which a person notified by the Secretary of remedial action to be taken fails to take such action. The efforts of the defendant to abate the pollution in question must be taken

into account by the court in determining the amount of the penalty.

Sec. 108 (c)(5) of the Act. Officers or employees duly designated by the Secretary are authorized to enter any establishment within an air quality control region with respect to which the Secretary determines the air quality does not meet prescribed ambient air quality standards. In addition, such entry may be made where the Secretary has reason to believe that an establishment is or may be contributing to air pollution subject to abatement under section 108(c)(4), or that the establishment has failed to take remedial action required by a notice issued under that section.

Air pollution will continue to be subject to control or abatement in accordance with the conference procedure set out under existing law (section 108(d)–(j)); however, under the amendment made by section 4 (b) a conference may not be called under subparagraph (A), (B), or (C) of section 108(d)(1) (and subsequent proceedings based on such conference may not be conducted under section 108(e)–(j)) with respect to a pollutant for which (at the time the conference is called) a national ambient air quality standard has been prescribed.

Subsection (c) of this section provides that ambient air-quality standards and implementation and enforcement plans approved or submitted for approval by the Secretary before the date of enactment of this legislation continue in effect as if this legislation had not been enacted until such dates as the Secretary shall establish. No such date, however, shall be later than 1 year after the date of enactment of the legislation.

Sec. 5. Federal emission standards for new stationary sources

Subsection (a) of this section would add a new section 112 to the Clean Air Act. It authorizes and directs the Secretary to establish

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emission standards with respect to any class of new stationary sources which because of the nature or amount of emissions may contribute substantially to endangerment of the public health or welfare. The purpose of this authority is to prevent the occurrence of significant new air pollution problems arising from or associated with such new sources. In prescribing such standards the Secretary is directed to give appropriate consideration to technological and economic feasibility.

As explained above, such new sources may take the form either of entirely new facilities or expanded or modified facilities, or of expanded or modified operations which result in substantially increased pollution.

In the case of any class of emissions which the Secretary determines is extremely hazardous to health, the emission standards shall provide that no new sources of such emissions shall be constructed or operated, except where (and subject to such conditions as he deems necessary and appropriate) he makes a specific exemption with respect to such construction or operation.

With regard to other emissions for which he may prescribe emission standards under this section, the emission standards shall provide that sources of such emissions shall be designed and equipped to prevent and control such emissions to the fullest extent compatible with the available technology and economic feasibility as determined by the Secretary. (In order to be considered "available" the technology may not be one which constitutes a purely theoretical or experimental means of preventing or controlling air pollution.)

The Secretary may exempt any industry or estabishment, or any class thereof, for the purpose of research, investigations, studies, demonstrations, or training, or for reasons of national security. In such cases, however, he may specify such terms and conditions as he may find necessary to protect the public health or welfare.

Any such standards may be established only after reasonable notice and opportunity for interested parties to present their views at a public hearing, and after consultation with appropriate Federal departments and agencies having responsibilities related to such sources.

If, within such period as may be prescribed by the Secretary, any State or interstate air pollution control agency adopts a plan for the enforcement of the emission standards, and if the Secretary determines that such plan provides adequately for the enforcement of such standards, the plan thereupon shall become applicable within such State or area.

If a State does not adopt such a plan, the Secretary shall, after reasonable notice and a conference of representatives of appropriate Federal departments and agencies as well as State agencies, prepare regulations establishing an enforcement plan for such State. The Secretary may promulgate regulations effectuating such plan unless the State decides to adopt it.

If at any time the Secretary determines that any person is vio-

lating the emission standards or that the State or interstate agency is failing to carry out such plan, the Secretary is directed to notify the agencies as well as the violator, and specify the time within which such violation must cease. If the violation does not cease within such time, the Secretary may request the Attorney General to bring suit on behalf of the United States in the appropriate U.S. district court to secure abatement of the pollution. The court may enter such judgment

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as the public interest and the equities of the case may require. Also, the court may assess a penalty of up to $10,000 for each day of violation after the time specified by the Secretary for the cessation of the violation. In determining the amount of such penalty, the court is directed to take into account the efforts of the defendant to abate the pollution involved.

Officers or employees duly designated by the Secretary are authorized to enter at reasonable times any establishment which the Secretary has reason to believe is or may be in violation of regulations issued under this section, to determine whether any violation is occurring. Such employee must present appropriate credentials and a written notice to the owner or person in charge of such establishment. Such inspections may include records, files, papers, processes, controls and facilities relevant to compliance with the regulations.

Subsection (b) of this section makes a conforming amendment to section 108(b) of the Clean Air Act, designed to assure that the Secretary's establishment of emission standards does not preclude State action with regard to stationary sources.

Sec. 6. Automotive emission control—motor vehicle and motor vehicle engine compliance testing and certification

Subsection (a) of this section amends section 206 of the act to direct the Secretary to test, or require to be tested in such manner as he deems appropriate, prototypes of any new motor vehicle and new motor vehicle engine submitted by a manufacturer to determine whether such vehicle or engine conforms with the motor vehicle emission standards established by him. If the vehicle or engine does conform, the Secretary is directed to issue a certificate of conformity upon such terms and for such period (not in excess of 1 year) as he may prescribe.

The Secretary is authorized to test vehicles or engines being manufactured by the manufacturer, in order to determine whether

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such vehicles or engines do in fact comply with the emission standards with respect to which the certificate was issued. Such tests may be conducted either directly by the Secretary or by the manufacturer in accordance with conditions specified by the Secretary.

If the Secretary determines on the basis of such tests that such vehicles or engines do not conform to the emission standards, he may suspend or revoke the certificate in whole or in part, and he so must notify the manufacturer. Such suspension or revocation applies to any vehicle or engine manufacturer after the date of notification (or manufactured before such date if still in the hands of the manufacturer) and until such time as the Secretary finds that vehicles and engines manufactured by the manufacturer do conform to such emission standards. If during a period of suspension or revocation the Secretary finds that any such vehicle or engine actually conforms to such regulations, he shall issue a certificate of conformity applicable to such vehicle or engine.

The Secretary is required to grant any manufacturer making such request a hearing as to whether the tests conducted on the vehicles or engines are appropriate, whether any sampling methods which have been applied are appropriate, or whether the tests have been properly conducted. On the basis of such hearing, the Secretary is directed to make a determination on the record with respect to such suspension or revocation. Such suspension or revocation, however, will not be stayed by reason of such hearing.

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In any case of actual controversy over such determination, the manufacturer may within 60 days file a petition for judicial review with the U.S. court of appeals for the circuit wherein such manufacturer resides or has his principal place of business.

The court may order additional evidence to be taken before the Secretary if the petitioner applying for leave to adduce such evidence shows to the satisfaction of the court that such evidence is material and that there are reasonable grounds for the failure to adduce such evidence in the proceeding before the Secretary. The Secretary may modify his findings as to the facts, or make new findings, by reason of the additional evidence, and he may also modify or set aside his original determination.

Officers and employees of the Secretary are authorized to inspect at reasonable times any plant or other establishment for the purpose of testing vehicles or engines coming off the production line,

or to inspect records, files, papers, processes, controls, and facilities used by such manufacturer in conducting tests on such vehicles and engines.

Subsection (b) of section 6 of the bill amends section 206 of the act to require manufacturers to warrant every new motor vehicle or engine to have emission control systems or devices that are substantially of the same construction as systems or devices upon prototype vehicles or engines for which a certificate has been issued. (Because of the present unavailability of adequate, low-cost testing devices to test automobile emissions while vehicles are in actual use, the committee decided that a performance warranty would be inappropriate at this time.) Manufacturers are also required to furnish with each vehicle or engine written instructions for necessary maintenance by the ultimate purchaser. Additionally, the manufacturer must indicate by means of a label or tag permanently affixed to such vehicle or engine that it is covered by a certificate of conformity issued for the purpose of assuring achievement of emission standards prescribed under section 202 of the act. Such label or tag must also contain such other information relating to control of motor vehicle emissions as the Secretary shall prescribe by regulation. The warranty provision added by this subsection does not relieve a manufacturer from any liability at common law or under statutory law.

Under existing law, manufacturers are prohibited from manufacturing for sale, selling, offering for sale, or introducing or delivering for introduction into commerce any new motor vehicle or engine to which emissions standards apply, unless such vehicle or engine is in conformity with the emission standards. (Any vehicle which is in all material respects of the same construction as a prototype for which a certificate has been issued is deemed under existing law to be in conformity with the standards.) Section 6(c) of the bill modifies this prohibition so that a manufacturer may not sell, offer for sale, introduce or deliver for introduction into commerce any vehicle or engine to which an emission standard applies, unless such vehicle or engine is covered by a certificate of conformity. (As noted above a certificate may be suspended or revoked if the Secretary's production-line testing shows that vehicles or engines covered by it do not actually meet the applicable emissions standards.)

Subsection (d) of section 6 of the bill provides that the amendments made by section 6 relating to compliance testing and certi-

fication, and to warranties, instructions and labels apply to vehicles and engines

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manufactured after the 30th day after the enactment of the bill or after such later date (within 180 days after enactment) as the Secretary prescribes and publishes in the Federal Register.

Subsection (e) of section 6 of the bill modifies the provisions of title II of the Clean Air Act which apply to imported vehicles and engines. Under existing law, emission standards apply only to new vehicles, or engines imported for sale or resale. The amendments made by subsection (e) would make the requirements of title II applicable to any imported vehicle or engine (whether or not new and whether or not imported for sale or resale) if the vehicle or engine was subject to the standards when manufactured (or would have been so subject had it been manufactured for importation). The provisions of this subsection are applicable in the case of motor vehicles or engines imported into the United States on or after the 60th day following the date of enactment of this act.

Sec. 7. Automotive emission control testing report

The Secretary is required to report to the Congress within 1 year of the date of enactment of this bill the results of research and development conducted by him with respect to low cost instrumentation techniques to facilitate the determination of the quantity and quality of air pollutants emitted from motor vehicles. Such report is to include his recommendations for a program to assure that emission standards for motor vehicles and engines are met during the life of such vehicles and engines.

Sec. 8. Standards with respect to fuel

Section 8 amends section 210 of the Clean Air Act by adding the new provisions described below. These provisions deal with standards with respect to all types of fuels (except aviation fuels), but special requirements are set forth with regard to the establishment of standards for motor vehicle fuels.

The Secretary is authorized to establish standards respecting the composition of the chemical or physical properties of any fuel or fuel additive by specifying limitations on (or providing for elimination of) ingredients (including additives) or on the physical or chemical characteristics of any fuel or class of fuels. He may establish standards respecting a fuel (or fuel additive) only if either (1) emission products therefrom endanger public health

or welfare, or (2) the fuel or fuel additive will significantly impair performance of an emission control device or system in general use (or likely to be in general use) on a significant number of motor vehicles or motor vehicle engines.

Standards established on the basis that any emissions of any fuel or fuel additive will endanger the public health or welfare must be based on specific findings derived from relevant medical and scientific evidence. In the case of a standard applicable to motor vehicle fuel or fuel additive, he must also find that, in the absence of a standard with respect to such fuel or additives, it will not be technologically or economically feasible to achieve the automotive emission standards established by him under section 202 of the Clean Air Act. Standards established on the basis that a fuel or fuel additive will impair to a significant degree the performance of any emission control device or system in general use, or likely to be in general use, must be based on specific findings derived from scientific evidence, including a cost-benefit analysis comparing emission control devices or systems which

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will require the proposed standard, with devices or systems which will not do so.

The Secretary's authority under this section is applicable to all types of fuels, whether used in stationary sources or in motor vehicles, except that it does not apply to aviation fuel or additives thereto. (With regard to aviation fuels, special provisions are contained in section 9 of the bill granting appropriate authority to the Federal Aviation Administrator.)

For the purpose of making these findings, the Secretary may require the manufacturer of any fuel or fuel additive and the manufacturer of any motor vehicle or engine to furnish any information which has been developed concerning emissions from motor vehicles resulting from use of any fuel or fuel additive, or the effect of such use on the performance of any emission control device or system.

Failure to comply with the provisions of this section may subject the manufacturer to penalties of up to $10,000.

Sec. 9. Aircraft emission standards

Section 9(a) would add to title II of the Clean Air Act new sections 231 and 232. Section 231 directs the Secretary to prescribe, as soon as practicable, giving appropriate consideration to technological feasibility and economic costs, emission standards

for any class of aircraft or aircraft engines which cause or contribute to air pollution endangering the health or welfare of any persons. Such standards are to apply, whether the aircraft or engines are designed as complete systems or whether they incorporate other devices to prevent or control pollution. Such standards are to include requirements with respect to manufacturers' warranty of such systems or devices.

Any such standards shall be prescribed only after consultation with the Federal Aviation Administrator in order to assure appropriate consideration for aircraft safety. The Administrator is directed to apply such standards in the certification and inspection of aircraft or engines pursuant to his authority under the Federal Aviation Act of 1958.

Under section 232, States or political subdivisions thereof are prohibited from attempting to enforce or adopting any standard relating to the control of emissions from aircraft or aircraft engines subject to sections 231 and 232. No State may require certification, inspection, or any other approval relating to the control of emissions from any aircraft or engines as a condition precedent to the initial sale, titling, or registration of aircraft or engines.

Section 9(b) of the bill amends section 601 of the Federal Aviation Act of 1958 by adding a new subsection (d). The new provision authorizes the Administrator to prescribe and revise from time to time regulations establishing standards governing the composition or the chemical or physical properties of any aircraft fuel or fuel additive for the purpose of controlling or eliminating aircraft emissions which endanger the public health or welfare as determined by the Secretary of Health, Education, and Welfare.

Sec. 10. Federal facilities

This section would amend section 111 of the Clean Air Act to direct Federal agencies in the executive, legislative, and judicial local emission

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standards. The Secretary is authorized to exempt any facility for a period not in excess of 1 year. Additional exemptions for the same facility may be granted, but the Secretary is required to report each January to the Congress all exemptions granted during the preceding calendar year, together with the reason for granting each such exemption.

Your committee would like to note that the Capitol Power Plant which provides electricity, heating and cooling to the Capitol, the House and Senate Office Buildings, the Supreme Court and the Library of Congress is not presently subject to the provisions of the Clean Air Act. The bill reported by your committee would correct this situation and make this facility along with other Federal installations subject to the provisions of this section.

Sec. 11. Extension of authorizations

Section 11 amends section 104(c) of the Clean Air Act (which authorizes appropriations for research relating to fuels and vehicles) by authorizing the following additional appropriations:

For the fiscal year ending June 30, 1971, $75 million.
For the fiscal year ending June 30, 1972, $100 million.
For the fiscal year ending June 30, 1973, $125 million.

This section would also amend section 309 of the Clean Air Act, authorizing appropriations for activities other than research relating to fuels and vehicles by authorizing the following additional appropriations.

For the fiscal year ending June 30, 1971, $125 million.
For the fiscal year ending June 30, 1972, $150 million.
For the fiscal year ending June 30, 1973, $200 million.

In addition, the section would authorize such sums not to exceed 1 percent of such appropriations to be available for evaluation (directly or by grants or contracts) of any program authorized by the Clean Air Act.

CONCLUSIONS

Air pollution in the United States is the result of pollution from numerous highly diversified sources. They range from millions of automobiles driven on city streets or interstate highways to a relatively limited number of facilities and plants which are large-scale-polluters such as powerplants burning coal or fuel oil.

In fashioning effective strategies in the campaign for clean air in the United States, the different pollutants which affect our health and welfare in different ways and in varying degrees of severity, and the different sources from which they emanate must be controlled. Effective technologies to reduce or eliminate particular pollutants must be developed.

While the basic strategies in the Nation's war against air pollution must be developed in a unified and consistent way by the Federal Government, the implementation and enforcement of these

strategies will have to be effected in every community in the United States. Therefore, prompt and effective regional, State, and local efforts are needed to win the campaign for clean air.

The legislation reported by your committee is designed to achieve these several objectives and to do so without delay.

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CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3 of rule XII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

CLEAN AIR ACT

TITLE I—AIR POLLUTION PREVENTION AND CONTROL

FINDINGS AND PURPOSES

SEC. 101. (a) The Congress finds—

(1) that the predominant part of the Nation's population is located in its rapidly expanding metropolitan and other urban areas, which generally cross the boundary lines of local jurisdictions and often extend into two or more States;

(2) that the growth in the amount and complexity of air pollution brought about by urbanization, industrial development, and the increasing use of motor vehicles, has resulted in mounting dangers to the public health and welfare, including injury to agricultural crops and livestock, damage to and the deterioration of property, and hazards to air and ground transportation;

(3) that the prevention and control of air pollution at its source is the primary responsibility of States and local governments; and

(4) 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.

(b) The purposes of this title are—

(1) to protect and enhance the quality of the Nation's air

resources so as to promote the public health and welfare and the productive capacity of its population;

(2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution;

(3) to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and

(4) to encourage and assist the development and operation of regional air pollution control programs.

COOPERATIVE ACTIVITIES AND UNIFORM LAWS

SEC. 102. (a) The Secretary shall encourage cooperative activities by the States and local governments for the prevention and control of air pollution; encourage the enactment of improved and, so far as practicable in the light of varying conditions and needs, uniform State and local laws relating to the prevention and control of air pollution; and encourage the making of agreements and compacts between States for the prevention and control of air pollution.

(b) The Secretary shall cooperate with and encourage cooperative activities by all Federal departments and agencies having functions relating to the prevention and control of air pollution, so as to assure

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the utilization in the Federal air pollution control program of all appropriate and available facilities and resources within the Federal Government.

(c) The consent of the Congress is hereby given to two or more States to negotiate and enter into agreements or compacts, not in conflict with any law or treaty of the United States, for (1) cooperative effort and mutual assistance for the prevention and control of air pollution and the enforcement of their respective laws relating thereto, and (2) the establishment of such agencies, joint or otherwise, as they may deem desirable for making effective such agreements or compacts. No such agreement or compact shall be binding or obligatory upon any State a party thereto unless and until it has been approved by Congress. It is the intent of Congress that no agreement or compact entered into between States after the date of enactment of the Air Quality Act of 1967,

which relates to the control and abatement of air pollution in an air quality control region, shall provide for participation by a State which is not included (in whole or in part) in such air quality control region.

RESEARCH, INVESTIGATIONS, TRAINING, AND OTHER ACTIVITIES

SEC. 103. (a) The Secretary shall establish a national research and development program for the prevention and control of air pollution and as part of such program shall—

(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;

(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;

(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;

(4) 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.

(b) In carrying out the provisions of the preceding subsection the Secretary is authorized to—

(1) collect and make available, through publications and other appropriate means, the results of and other information, including appropriate recommendations by him in connection therewith, pertaining to such research and other activities;

(2) cooperate with other Federal departments and agencies, with air pollution control agencies, with other public and private agencies, institutions, and organizations, and with any industries involved, in the preparation and conduct of such research and other activities;

(3) make grants to air pollution control agencies, to other public or nonprofit private agencies, institutions, and organizations, and to individuals, for purposes stated in subsection (a) (1) of this section;

(4) contract with public or private agencies, institutions, and organizations, and with individuals, without regard to sections 3648 and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5);

(5) provide training for, and make training grants to, personnel of air pollution control agencies and other persons with suitable qualifications;

(6) establish and maintain resarch fellowships, in the Department of Health, Education, and Welfare and at public or nonprofit private educational institutions or research organizations;

(7) collect and disseminate, in cooperation with other Federal departments and agencies, and with other public or private agencies, institutions, and organizations having related responsibilities, basic data on chemical, physical, and biological effects of varying air quality and other information pertaining to air pollution and the prevention and control thereof; and

(8) develop effective and practical processes, methods, and prototype devices for the prevention or control of air pollution.

(c) In carrying out the provisions of subsection (a) of this section the Secretary shall conduct research on, and survey the results of other scientific studies on, the harmful effects on the health or welfare of persons by the various known air pollution agents (or combinations of agents).

(d) The Secretary is authorized to construct such facilities and staff and equip them as he determines to be necessary to carry out his functions under this Act.

(e) If, in the judgment of the Secretary, an air pollution problem of substantial significance may result from discharge or discharges into the atmosphere, he may call a conference concerning this potential air pollution problem to be held in or near one or more of the places where such discharge or discharges are occurring or will occur. All interested persons shall be given an opportunity to be heard at such conference, either orally or in writing, and shall be permitted to appear in person or by representative in accordance with procedures prescribed by the Secretary. If the

Secretary finds, on the basis of the evidence presented at such conference, that the discharge or discharges if permitted to take place or continue are likely to cause or contribute to air pollution subject to abatement under section 108(a), he shall send such findings, together with recommendations concerning the measures which he finds reasonable and suitable to prevent such pollution, to the person or persons whose actions will result in the discharge or discharges involved; to air pollution agencies of the State or States and of the municipality or municipalities where such discharge or discharges will originate; and to the interstate air pollution control agency, if any, in the jurisdictional area of which any such municipality is located. Such findings and recommendations shall be advisory only, but shall be admitted together with the record of the conference, as part of the proceedings under subsections (d), (e), and (f) of section 108.

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RESEACH RELATING TO FUELS AND VEHICLES

SEC. 104. (a) The Secretary shall give special emphasis to research and development into new and improved methods, having industrywide application, for the prevention and control of air pollution resulting from the combustion of fuels. In furtherance of such research and development he shall—

(1) conduct and accelerate research programs directed toward development of improved, low-cost techniques for control of combustion byproducts of fuels, for removal of potential pollutants from fuels, and for control of emissions from evaporation of fuels;

(2) provide for Federal grants to public or nonprofit agencies, institutions, and organizations and to individuals, and contracts with public or private agencies, institutions, or persons, for payment of (A) part of the cost of acquiring, constructing, or otherwise securing for research and development purposes, new or improved devices or methods having industrywide application of preventing or controlling discharges into the air of various types of pollutants; and (B) carrying out the other provisions of this section, without regard to sections 3648 and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5): *Provided*, That research or demonstration contracts awarded pursuant to this subsection (including contracts for construction) may be made in accordance with, and subject to the limitations provided with respect to re-

search contracts of the military departments in, section 2353 of title 10, United States Code, except that the determination, approval, and certification required thereby shall be made by the Secretary: *Provided further*, That no grant may be made under this paragraph in excess of $1,500,000;

(3) determine, by laboratory and pilot plant testing, the results of air pollution research and studies in order to develop new or improved processes and plant designs to the point where they can be demonstrated on a large and practical scale;

(4) construct, operate, and maintain, or assist in meeting the cost of the construction, operation, and maintenance of new or improved demonstration plants or processes which have promise of accomplishing the purposes of this Act;

(5) study new or improved methods for the recovery and marketing of commercially valuable byproducts resulting from the removal of pollutants.

(b) In carrying out the provisions of this section, the Secretary may—

(1) conduct and accelerate research and development of low-cost instrumentation techniques to facilitate determination of quantity and quality of air pollutant emissions, including, but not limited to, automotive emissions;

(2) utilize, on a reimbursable basis, the facilities of existing Federal scientific laboratories;

(3) establish and operate necessary facilities and test sites at which to carry on the research, testing, development, and programing necessary to effectuate the purposes of this section;

(4) acquire secret processes, technical data, inventions, patent applications, patents, licenses, and an interest in lands, plants, and facilities, and other property or rights by purchase, license, lease, or donation; and

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(5) cause on-site inspections to be made of promising domestic and foreign projects, and cooperate and participate in their development in instances in which the purposes of the Act will be served thereby.

(c) For the purposes of this section there are authorized to be appropriated for the fiscal year ending June 30, 1968, $35,000,000, for the fiscal year ending June 30, 1969, $90,000,000, [and] for the

fiscal year ending June 30, 1970, $45,000,000, *for the fiscal year ending June 30, 1971, $75,000,000, for the fiscal year ending June 30, 1972, $100,000,000, and for the fiscal year ending June 30, 1973, $125,000,000.* Amounts appropriated pursuant to this subsection shall remain available until expended.

GRANTS FOR SUPPORT OF AIR POLLUTION PLANNING AND CONTROL PROGRAMS

SEC. 105. (a) (1) The Secretary is authorized to make grants to air pollution control agencies in an amount up to two-thirds of the cost of planning, developing, establishing, or improving, and grants to such agencies in an amount up to one-half of the cost of maintaining, programs for the prevention and control of air pollution and programs for the implementation of air quality standards authorized by this Act: *Provided,* That the Secretary is authorized to make grants to air pollution control agencies within the meaning of sections 302(b) (2) and 302(b) (4) in an amount up to three-fourths of the cost of planning, developing, establishing, or improving and up to three-fifths of the cost of maintaining regional air quality control programs. As used in this subsection the term "regional air quality control program" means a program for the prevention and control of air pollution or the implementation of air quality standards programs as authorized by this Act, in an area that includes the areas of two or more municipalities whether in the same or different States.

(2) Before approving any grant under this subsection to any air pollution control agency within the meaning of sections 302 (b) (2) and 302(b) (4), the Secretary shall receive assurances that such agency provides for adequate representation of appropriate State, interstate, local, and (when appropriate) international, interests in the air quality control region.

(3) Before approving any planning grant under this subsection to any air pollution control agency within the meaning of sections 302(b) (2) and 302(b) (4), the Secretary shall receive assurances that such agency has the capability of developing a comprehensive air quality plan for the air quality control region, which plan shall include (when appropriate) a recommended system of alerts to avert and reduce the risk of situations in which there may be imminent and serious danger to the public health or welfare from air pollutants and 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.

(b) From the sums available for the purposes of subsection (a) of this section for any fiscal year, the Secretary shall from time to time make grants to air pollution control agencies upon such terms and conditions as the Secretary may find necessary to carry out the pur-

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pose of this section. In establishing regulations for the granting of such funds the Secretary shall, so far as practicable, give due consideration to (1) the population, (2) the extent of the actual or potential air pollution problem, and (3) the financial need of the respective agencies. No agency shall receive any grant under this section during any fiscal year when its expenditures of non-Federal funds for other than nonrecurrent expenditures for air pollution control programs will be less than its expenditures were for such programs during the preceding fiscal year; and no agency shall receive any grant under this section with 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, or 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, or other non-Federal funds. No grant shall be made under this section until the Secretary has consulted with the appropriate official as designated by the Governor or Governors of the State or States affected.

(c) Not more than 10 per centum of the total funds appropriated or allocated for the purposes of subsection (a) of this section shall be granted for air pollution control programs in any one State. In the case of a grant for a program in an area crossing State boundaries, the Secretary shall determine the portion of such grant that is chargeable to the percentage limitation under this subsection for each State into which such area extends.

[INTERSTATE AIR QUALITY AGENCIES OR COMMISSIONS

[SEC. 106. (a) For the purpose of expediting the establishment of air quality standards in an interstate air quality control region designated pursuant to section 107(a)(2), the Secretary is authorized to pay, for two years, up to 100 per centum of the air qual-

ity planning program costs of any agency designated by the Governors of the affected States, which agency shall be capable of recommending to the Governors standards of air quality and plans for implementation thereof and shall include representation from the States and appropriate political subdivisions within the air quality control region. After the initial two-year period the Secretary is authorized to make grants to such agency in an amount up to three-fourths of the air quality planning program costs of such agency.

[(b) (1) Whenever the Secretary deems it necessary to expedite the establishment of standards for an interstate air quality control region designated pursuant to section 107 (a) (2) he may, after consultation with the Governors of the affected States, designate or establish an air quality planning commission for the purpose of developing recommended regulations setting forth standards of air quality to be applicable to such air quality control region.

[(2) Such Commission shall consist of the Secretary or his designee who shall serve as Chairman, and adequate representation of appropriate State, interstate, local and (when appropriate), international, interests in the designated air quality control region.

[(3) The Secretary shall, within available funds, provide such staff for such Commission as may be necesary to enable it to carry out its functions effectively, and shall pay the other expenses of the Com-

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mission; and may also accept for the use by such Commission, funds, property, or services contributed by the State involved or poltiical subdivisions thereof.

[(4) Each appointee from a State, other than an official or employee thereof, or of any political subdivision thereof, shall, while engaged in the work of the Commission, receive compensation at a rate fixed by the Secretary, but not in excess of $100 per diem, including traveltime, and while away from his home or regular place of business, he may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law (5 U.S.C. 3109) for persons in the Government service employed intermittently.]

[AIR QUALITY CONTROL REGIONS, CRITERIA, AND CONTROL TECHNIQUES

[Sec. 107. (a) (1) The Secretary shall, as soon as practicable,

but not later than one year after the date of enactment of the Air Quality Act of 1967, define for the purposes of this Act, atmospheric areas of the Nation on the basis of those conditions, including, but not limited to, climate, meteorology, and topography, which affect the interchange and diffusion of pollutants in the atmosphere.

[(2) For the purpose of establishing ambient air quality standards pursuant to section 108, and for administrative and other purposes, the Secretary, after consultation with appropriate State and local authorities shall, to the extent feasible, within 18 months after the date of enactment of the Air Quality Act of 1967 designate air quality control regions based on jurisdictional boundaries, urban-industrial concentrations, and other factors including atmospheric areas necessary to provide adequate implementation of air quality standards. The Secretary may from time to time thereafter, as he determines necessary to protect the public health and welfare and after consultation with appropriate State and local authorities, revise the designation of such regions and designate additional air quality control regions. The Secretary shall immediately notify the Governor or Governors of the affected State or States of such designation.]

Air Quality Control Regions and National Ambient Air Quality Standards

Sec. 107. (a)(1) For the purpose of insuring the expeditious attainment of ambient air quality standards throughout the United States, the Congress hereby declares that each State shall be an air quality control region.

(2) In addition to the regions provided for by paragraph (1), the following areas shall be considered air quality control regions:

(A) Any air quality control region established under this section before the date of enactment of the Clean Air Act Amendments of 1970 which included all or part of more than one State.

(B) Any region—

(i) which the Secretary designates after such date,

(ii) which includes all or part of more than one State, and

(iii) the establishment of which the Secretary determines is necessary to deal with interstate air pollution problems.

The Secretary may designate an air quality control region under

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subparagraph (B) of this paragraph only after consultation with appropriate State and local authorities. The Secretary shall immediately notify the

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Governors of the affected States of any designation made under subparagraph (B) of this paragraph.

(b) (1) The Secretary shall, after consultation with appropriate advisory committees and Federal departments and agencies, from time to time, but as soon as practicable, develop and issue to the States such criteria of air quality as in his judgment may be requisite for the protection of the public health and welfare: *Provided,* That any criteria issued prior to enactment of this section shall be reevaluated in accordance with the consultation procedure and other provisions of this section and, if necessary, modified and reissued. Such issuance shall be announced in the Federal Register and copies shall be made available to the general public.

(2) Such criteria shall accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on health and welfare which may be expected from the presence of an air pollution agent, or combination of agents in the ambient air, in varying quantities.

(3) Such criteria shall include those variable factors which of themselves or in combination with other factors may alter the effects on public health and welfare of any subject agent or combination of agents, including, but not limited to, atmospheric conditions, and the types of air pollution agent or agents which, when present in the atmosphere, may interact with such subject agent or agents, to produce an adverse effect on public health and welfare.

(c) The Secretary shall, after consultation with appropriate advisory committees and Federal departments and agencies, issue to the States and appropriate air pollution control agencies information on those recommended pollution control techniques the application of which is necesary to achieve levels of air quality set forth in [criteria issued pursuant to subsection (b), including those criteria subject to the proviso in subsection (b)(1)] *the standards issued under subsection (e),* which information shall include technical data relating to the technology and costs of emission control. Such recommendations shall include such data as are available on the latest available technology and economic feasibility of alternative methods of prevention and control of air

contamination including cost-effectiveness analyses. Such issuance shall be announced in the Federal Register and copies shall be made available to the general public.

(d) The Secretary shall, from time to time, revise and reissue material issued pursuant to subsections (b) and (c) in accordance with procedures established in such subsections.

(e)(1) The Secretary shall publish in the Federal Register proposed regulations establishing nationally applicable standards of ambient air quality for any pollutant or combination of pollutants which he determines endanger or may endanger the public health or welfare and with respect to which criteria have been issued under this section, and he shall allow a reasonable time for comment thereon by interested parties.

(2) Within thirty days after the date of enactment of the Clean Air Act Amendments of 1970, the Secretary shall publish proposed regulations establishing ambient air quality standards for each pollutant or combination of pollutants for which air quality criteria have been issued pursuant to this section before such date of enactment. The Secretary shall publish proposed regulations establishing such standards for any other pollutant or combination of pollutants within thirty days after he issues criteria with respect thereto pursuant to this section.

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(3) After considering the comments referred to in paragraph (1) and other relevant information, the Secretary shall, by regulation, promulgate such standards with such modifications as he deems appropriate. He may from time to time thereafter, by regulation similarly prescribed, revise standards promulgated under this section.

IMPLEMENTATION AND ENFORCEMENT OF
AIR QUALITY STANDARDS

SEC. 108. (a) The pollution of the 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.

(b) Consistent with the policy declaration of his title, municipal, State, and interstate action to abate air pollution shall be encouraged and shall not be displaced by Federal enforcement action except as otherwise provided by or pursuant to a court order under subsection (c), (h), or (k) *or under section 112 of this Act.*

[(c)(1) If, after receiving any air quality criteria and recom-

mended control techniques issued pursuant to section 107, the Governor of a State, within ninety days of such receipt, files a letter of intent that such State will within one hundred and eighty days, and from time to time thereafter, adopt, after public hearings, ambient air quality standards applicable to any designated air quality control region or portions thereof within such State and within one hundred and eighty days thereafter, and from time to time as may be necessary, adopts a plan for the implementation, maintenance, and enforcement of such standards of air quality adopted, and if such standards and plan are established in accordance with the letter of intent and if the Secretary determines that such State standards are consistent with the air quality criteria and recommended control techniques issued pursuant to section 107; that the plan is consistent with the purposes of the Act insofar as it assures achieving such standards of air quality within a reasonable time; and that a means of enforcement by State action, including authority comparable to that in subsection (k) of this section, is provided, such State standards and plan shall be the air quality standards applicable to such State. If the Secretary determines that any revised State standards and plan are consistent with the purposes of this Act and this subsection, such standards and plan shall be the air quality standards applicable to such State.

[(2) If a State does not (A) file a letter of intent or (B) establish air quality standards in accordance with paragraph (1) of this subsection with respect to any air quality control region or portion thereof and if the Secretary finds it necessary to achieve the purpose of this Act, or the Governor of any State affected by air quality standards established pursuant to this subsection petitions for a revision in such standards, the Secretary may after reasonable notice and a conference of representatives of appropriate Federal departments and agencies, interstate agencies, States, municipalities, and industries involved, prepare regulations setting forth standards of air quality consistent with the air quality criteria and recommended control techniques issued pursuant to section 107 to be applicable to such air quality control region or portions thereof. If, within six months from the date the Secretary publishes such regulations, the State has not adopted air quality standards found by the Secretary to be consistent with the purposes of this Act, or a petition for public hearing has not been filed.

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under paragraph (3) of this subsection, the Secretary shall promulgate such standards.

[(3) If at any time prior to thirty days after standards have been promulgated under paragraph (2) of this subsection, the Governor of any State affected by such standards petitions the Secretary for a hearing, the Secretary shall call a public hearing for the purpose of receiving testimony from State and local pollution control agencies and other interested parties affected by the proposed standards, to be held in or near one or more of the places where the air quality standards will take effect, before a hearing board of five or more persons appointed by the Secretary. Each State which would be affected by such standards shall be given an opportunity to select a member of the hearing board. Each Federal department, agency, or instrumentality having a substantial interest in the subject matter as determined by the Secretary shall be given an opportunity to select one member of the hearing board and not less than a majority of the hearing board shall be persons other than officers or employees of the Department of Health, Education, and Welfare. The members of the board who are not officers or employees of the United States, while participating in the hearing conducted by such hearing board or otherwise engaged in the work of such hearing board, shall be entitled to receive compensation at a rate fixed by the Secretary, but not exceeding $100 per diem, including traveltime, and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703, title 5, of the United States Code for persons in the Government service employed intermittently. At least thirty days prior to the date of such hearing notice of such hearing shall be published in the Federal Register and given to parties notified of the conference required in paragraph (2) of this subsection. On the basis of the evidence presented at such hearing, the hearing board shall within ninety days unless the Secretary determines a longer period is necessary, but in no event longer than one hundred and eighty days, make findings as to whether the standards published or promulgated by the Secretary should be approved or modified and transmit its findings to the Secretary. If the hearing board approves the standards as published or promulgated by the Secretary, the standards shall take effect on receipt by the Secretary of the hearing board's recommendations. If the hearing board recommends modifications in the standards as published or promulgated by the Secretary, the Sec-

retary shall promulgate revised regulations setting forth standards of air quality in accordance with the hearing board's recommendations which will become effective immediately upon promulgation.

[(4) 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 under this subsection, 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. If such failure does not cease within one hundred and eighty days from the date of the Secretary's notification, the Secretary—

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[(i) in the case of pollution of air which is endangering the health or welfare of persons in a State other than that in which the discharge or discharges (causing or contributing to such pollution) originate, 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 pollution.

[(ii) in the case of pollution of air which is endangering the health or welfare of persons only in the State in which the discharge or discharges (causing or contributing to such pollution) originate, 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.

In any suit brought under the provisions of this subsection the court shall receive in evidence a transcript of the proceedings of the hearing provided for in this subsection, together with the recommendations of the hearing board and the recommendations and standards promulgated by the Secretary, and such additional evidence, including that relating to the alleged violation of the standards, as it deems necessary to complete review of the standards and to determination of all other issues relating to the alleged vio-

lation. The court, giving due consideration to the practicability and to the technological and economic feasibility of complying with such standards, shall have jurisdiction to enter such judgment and orders enforcing such judgment as the public interest and the equities of the case may require.]

(c)(1) If—

(A) within sixty days after promulgation of any new or revised national ambient air quality standard under section 107(e), the Governor of a State files a letter of intent that such State will within one hundred and eighty days after such filing, adopt, after reasonable notice of the proposed plan and public hearings on such proposal, a plan for the implementation, maintenance, and enforcement of such standard of air quality,

(B) such plan is established in accordance with the letter of intent, and

(C) the Secretary determines—

(i) that the plan is consistent with the purposes of this Act insofar as it assures achieving such standard of air quality within a reasonable time,

(ii) that an adequate means of enforcement by State action, including authority comparable to that in subsection (k) of this section, is provided,

(iii) that such plan contains adequate provisions for intergovernmental cooperation, including, in the case of any area covering part or all of more than one State and designated as an air quality control region by the Secretary under section 107(a)(2), appropriate provision for dealing with interstate air pollution problems, and

(iv) that such plan contains adequate provisions for revision from time to time, as required by the Secretary, to take account

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of improved or more expeditious methods of achieving the standards,

then such plan shall be the plan applicable to such State. A State may adopt an ambient air quality standard applicable to such State or any portion thereof for any pollutant if the Secretary agrees such State standard is more stringent than the national ambient air quality standard for such pollutant. Upon application by a State, the Secretary may for good cause shown grant (with

respect to all or part of a plan) an extension of such one hundred and eighty day period for such additional period, not to exceed one hundred and eighty days, as he determines necessary. If a State which has such a plan fails within 60 days after notification by the Secretary or such longer period as the Secretary may prescribe to revise it as required pursuant to subparagraph (C)(iv) or the last sentence of this paragraph, then such State shall be regarded for purposes of paragraph (2) as not having such a plan. Any revised State plan which the Secretary determines is consistent with this subsection shall be the plan applicable to such State. At such time as the Secretary, after consultation with the State, determines that the achievement of an air quality standard under section 107(e) requires inspection of motor vehicles in actual use and that such inspection is technologically and economically feasible, the State shall revise its plan to provide for such inspection.

(2) If a State does not (A) file a letter of intent, or (B) have a plan in accordance with paragraph (1) of this subsection, the Secretary may after reasonable notice publish proposed regulations setting forth a plan for the implementation, maintenance, and enforcement of such standard of air quality to be applicable to such State. If, within thirty days from the date the Secretary publishes such proposed regulations, the State has not adopted a plan determined by the Secretary to be in accordance with paragraph (1) of this subsection, or a petition for public hearing has not been filed under paragraph (3) of this subsection, the Secretary shall promulgate the plan applicable to such State in accordance with the proposed regulations.

(3) If, before the thirtieth day after proposed regulations have been published under paragraph (2) of this subsection, the Governor of the State affected by such proposed regulations petitions the Secretary for a hearing, the Secretary shall call a public hearing for the purpose of receiving testimony from State and local air pollution control agencies and other interested parties affected by the proposed regulations, to be held in or near one or more of the places where the plan will take effect. At least thirty days prior to the date of such hearing, notice of such hearing shall be published in the Federal Register and given to interested parties. On the basis of the evidence presented at such hearing, the Secretary shall within sixty days make findings as to whether the proposed plan should be modified. If the Secretary determines no modifications are necessary, the plan shall take effect. If the

Secretary determines modifications in the plan as published are necessary, he shall promulgate revised regulations setting forth a plan in accordance with such modifications, which will become effective immediately upon promulgation.

(4) Whenever, on the basis of surveys, studies, or reports, the Secretary finds that as a result of the failure of a State to take reasonable action to enforce the plan applicable to such State, the ambient air quality of any air quality control region or portion thereof does not meet an air quality standard established under section 107(e), the Secretary shall notify the affected State or States, persons not in compliance with the plan, and

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other interested parties, of such finding. If such failure by the State to take such action extends beyond the thirtieth day after the date of the Secretary's notification, 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 pollution. The court, giving due consideration to the practicability and to the technological and economic feasibility of complying with provisions of the plan established to implement such standards, shall have jurisdiction to enter such judgment and orders enforcing such judgment as the public interest and the equities of the case may require. In the case of any person who is notified by the Secretary of remedial action to be taken to abate such pollution and who fails to take such action within the time specified by the Secretary, the court may also assess a penalty of up to $10,000 for each day of violation after the end of such specified time. In determining the amount of such penalty, the court shall take into account the efforts of the defendant to abate the pollution in question.

(5) For purposes of carrying out paragraph (4), officers or employees duly designated by the Secretary, upon presenting appropriate credentials and a written notice to the owner or person in charge, are authorized to enter, at reasonable times—

(A) any establishment located in an air quality control region within any part of which the Secretary determines the air quality does not meet an air quality standard prescribed under section 107(e), in order to determine whether the requirements of the State plan applicable to such establishment are being enforced, or

(B) any establishment which the Secretary has reason to believe is or may be—

(i) contributing to air pollution subject to abatement under paragraph (4), or

(ii) failing to take remedial action required by a notice issued under paragraph (4),

in order to determine whether any such contribution or failure is occurring,

including, for this purpose, inspection, at reasonable times, of records, files, papers, processes, controls, and facilities relevant to such purpose. A separate notice shall be given for each such inspection, but a notice shall not be required for each entry made during the period covered by the inspection. Each such inspection shall be commenced and completed with reasonable promptness.

[5] (*6*) In connection with any hearings under this section no witness or any other person shall be required to divulge trade secrets or secret processes.

[6] (*7*) Nothing in this subsection shall prevent the application of this section to any case to which subsection (a) of this section would be otherwise applicable.

(d) (1) (A) Whenever requested by the Governor of any State, a State air pollution control agency, or (with the concurrence of the Governor and the State air pollution control agency for the State in which the municipality is situated) the governing body of any municipality, the Secretary shall, if such request refers to air pollution which is alleged to endanger the health or welfare of persons in a State other than that in which the discharge or discharges (causing or contributing to such pollution) originate, give formal notification thereof to the air pollution control agency of the municipality where such discharge or discharges originate, to the air pollution control agency of the State

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in which such municipality is located, and to the interstate air pollution control agency, if any, in whose jurisdictional area such municipality is located, and shall call promptly a conference of such agency or agencies and of the air pollution control agencies of the municipalities which may be adversely affected by such pollution, and the air pollution control agency, if any, of each State, or for each area, in which any such municipality is located.

(B) Whenever requested by the Governor of any State, a State air pollution control agency, or (with the concurrence of the Governor and the State air pollution control agency for the State

in which the municipality is situated) the governing body of any municipality, the Secretary shall, if such request refers to alleged air pollution which is endangering the health or welfare of persons only in the State in which the discharge or discharges (causing or contributing to such pollution) originate and if a municipality affected by such air pollution, or the municipality in which such pollution originates, has either made or concurred in such request, give formal notification thereof to the State air pollution control agency, to the air pollution control agencies of the municipality where such discharge or discharges originate, and of the municipality or municipalities alleged to be adversely affected thereby, and to any interstate air pollution control agency, whose jurisdictional area includes any such municipality and shall promptly call a conference of such agency or agencies, unless in the judgment of the Secretary, the effect of such pollution is not of such significance as to warrant exercise of Federal jurisdiction under this section.

(C) The Secretary may, after consultation with State officials of all affected States, also call such a conference whenever, on the basis of reports, surveys, or studies, he has reason to believe that any pollution referred to in subsection (a) is occurring and is endangering the health and welfare of persons in a State other than that in which the discharge or discharges originate. The Secretary shall invite the cooperation of any municipal, State, or interstate air pollution control agencies having jurisdiction in the affected area on any surveys or studies forming the basis of conference action.

(D) Whenever the Secretary, upon receipt of reports, surveys, or studies from any duly constituted international agency, has reason to believe that any pollution referred to in subsection (a) which endangers the health or welfare of persons in a foreign country is occurring, or whenever the Secretary of State requests him to do so with respect to such pollution which the Secretary of State alleges is of such a nature, the Secretary of Health, Education, and Welfare shall give formal notification thereof to the air pollution control agency of the municipality where such discharge or discharges originate, to the air pollution control agency of the State in which such municipality is located, and to the interstate air pollution control agency, if any, in the jurisdictional area in which such municipality is located, and shall call promptly a conference of such agency or agencies. The Secretary shall invite the foreign country which may be adversely affected

by the pollution to attend and participate in the conference, and the representative of such country shall, for the purpose of the conference and any further proceeding resulting from such conference, have all the rights of a State air pollution control agency. This subparagraph shall apply only to a foreign country which the Secretary determines has given the United States essentially the same rights with respect to the prevention or control of air pollu-
same rights with respect to the prevention or control of air

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pollution occurring in that country as is given that country by this subparagraph.

(E) A conference may not be called under subparagraph (A), (B), or (C) of this paragraph with respect to a pollutant for which (at the time the conference is called) a national ambient air quality standard has been prescribed under section 107(e).

(2) The agencies called to attend such conference may bring such persons as they desire to the conference. The Secretary shall deliver to such agencies and make available to other interested parties, at least thirty days prior to any such conference, a Federal report with respect to the matters before the conference, including data and conclusions or findings (if any); and shall give at least thirty days' prior notice of the conference date to any such agency, and to the public by publication on at least three different days in a newspaper or newspapers of general circulation in the area. The chairman of the conference shall give interested parties an opportunity to present their views to the conference with respect to such Federal report, conclusions or findings (if any), and other pertinent information. The Secretary shall provide that a transcript be maintained of the proceedings of the conference and that a copy of such transcript be made available on request of any participant in the conference at the expense of such participant.

(3) Following this conference, the Secretary shall prepare and forward to all air pollution control agencies attending the conference a summary of conference discussions including (A) occurrence of air pollution subject to abatement under this Act; (B) adequacy of measures taken toward abatement of the pollution; and (C) nature of delays, if any, being encountered in abating the pollution.

(e) If the Secretary believes, upon the conclusion of the conference or thereafter, that effective progress toward abatement

of such pollution is not being made and that the health or welfare of any persons is being endangered, he shall recommend to the appropriate State, interstate, or municipal air pollution control agency (or to all such agencies) that the necessary remedial action be taken. The Secretary shall allow at least six months from the date he makes such recommendations for the taking of such recommended action.

(f) (1) If, at the conclusion of the period so allowed, such remedial action or other action which in the judgment of the Secretary is reasonably calculated to secure abatement of such pollution has not been taken, the Secretary shall call a public hearing, to be held in or near one or more of the places where the discharge or discharges causing or contributing to such pollution originated, before a hearing board of five or more persons appointed by the Secretary. Each State in which any discharge causing or contributing to such pollution originates and each State claiming to be adversely affected by such pollution shall be given an opportunity to select one member of such hearing board and each Federal department, agency, or instrumentality having a substantial interest in the subject matter as determined by the Secretary shall be given an opportunity to select one member of such hearing board, and one memeber shall be a representative of the appropriate interstate air pollution agency if one exists, and not less than a majority of such hearing board shall be persons other than officers or employees of the Department of Health, Education, and Welfare. At least three weeks' prior notice of such hearing shall be given to the State, interstate, and municipal air pollution control agencies called to attend such hearing and to the alleged polluter or polluters. All interested hearing and to the alleged polluter or

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polluters. All interested parties shall be given a reasonable opportunity to present evidence to such hearing board.

(2) On the basis of evidence presented at such hearing, the hearing board shall make findings as to whether pollution referred to in subsection (a) is occurring and whether effective progress toward abatement thereof is being made. If the hearing board finds such pollution is occurring and effective progress toward abatement thereof is not being made it shall make recommendations to the Secretary concerning the measures, if any, which

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it finds to be reasonable and suitable to secure abatement of such pollution.

(3) The Secretary shall send such findings and recommendations to the person or persons discharging any matter causing or contributing to such pollution; to air pollution control agencies of the State or States and of the municipality or municipalities where such discharge or discharges originate; and to any interstate air pollution control agency whose jurisdictional area includes any such municipality, together with a notice specifying a reasonable time (not less than six months) to secure abatement of such pollution.

(g) If action reasonably calculated to secure abatement of the pollution within the time specified in the notice following the public hearing is not taken, the Secretary—

(1) in the case of pollution of air which is endangering the health or welfare of persons (A) in a State other than that in which the discharge or discharges (causing or contributing to such pollution) originate, or (B) in a foreign country which has participated in a conference called under subparagraph (D) of subsection (d) of this section and in all proceedings under this section resulting from such conference, 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 pollution.

(2) in the case of pollution of air which is endangering the health or welfare of persons only in the State in which the discharge or discharges (causing or contributing to such pollution) originate, 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.

(h) The court shall receive in evidence in any suit brought in a United States court under subsection (g) of this section a transcript of the proceedings before the board and a copy of the board's recommendations and shall receive such further evidence as the court in its discretion deems proper. The court, giving 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, shall have jurisdiction to enter such judgment, and orders enforcing such judgment, as the public interest and the equities of the case may require.

(i) Members of any hearing board appointed pursuant to subsection (f) who are not regular full-time officers or employees of the United States shall, while participating in the hearing conducted by

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such board or otherwise engaged on the work of such board, be entitled to receive compensation at a rate fixed by the Secretary, but not exceeding $100 per diem, including traveltime, and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law (5 U.S.C. 73b–2) for persons in the Government service employed intermittently.

(j) (1) In connection with any conference called under this section, the Secretary is authorized to require any person whose activities result in the emission of air pollutants causing or contributing to air pollution to file with him, in such form as he may prescribe, a report, based on existing data, furnishing to the Secretary such information as may reasonably be required as to the character, kind, and quantity of pollutants discharged and the use of devices or other means to prevent or reduce the emission of pollutants by the person filing such a report. After a conference has been held with respect to any such pollution the Secretary shall require such reports from the person whose activities result in such pollution only to the extent recommended by such conference. Such report shall be made under oath or otherwise, as the Secretary may prescribe, and shall be filed with the Secretary within such reasonable period as the Secretary may prescribe, unless additional time be granted by the Secretary. No person shall be required in such report to divulge trade secrets or secret processes and all information reported shall be considered confidential for the purposes of section 1905 of title 18 of the United States Code.

(2) If any person required to file any report under this subsection shall fail to do so within the time fixed by the Secretary for filing the same, and such failure shall continue for thirty days after notice of such default, such person shall forfeit to the United States the sum of $100 for each and every day of the

continuance of such failure, which forfeiture shall be payable into the Treasury of the United States, and shall be recoverable in a civil suit in the name of the United States brought in the district where such person has his principal office or in any district in which he does business: *Provided,* That the Secretary may upon application therefor remit or mitigate any forfeiture provided for under this subsection and he shall have authority to determine the facts upon all such applications.

(3) It shall be the duty of the various United States attorneys, under the direction of the Attorney General of the United States, to prosecute for the recovery of such forfeitures.

(k) Nothwithstanding any other provision of this section, the Secretary, upon receipt of evidence that a particular pollution source or combination of sources (including moving sources) is presenting an imminent and substantial endangerment to the health of persons, and finding that appropriate State or local authorities have not acted to abate such sources, may request the Attorney General to bring suit on behalf of the United States in the appropriate United States district court to immediately enjoin any contributor to the alleged pollution to stop the emission of contaminants causing such pollution or to take such other action as may be necessary.

STANDARDS TO ACHIEVE HIGHER LEVEL OF AIR QUALITY

SEC. 109. Nothing in this title shall prevent a State, political subdivision, intermunicipal or interstate agency from adopting standards

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and plans to implement an air quality program which will achieve a higher level of ambient air quality than *that prescribed or* approved by the Secretary.

PRESIDENT'S AIR QUALITY ADVISORY BOARD AND ADVISORY COMMITTEES

SEC. 110. (a) (1) There is hereby established in the Department of Health, Education, and Welfare an Air Quality Advisory Board, composed of the secretary or his designee, who shall be Chairman, and fifteen members appointed by the President, none of whom shall be Federal officers or employees. The appointed members, having due regard for the purposes of this Act, shall be selected

from among representatives of various state, interstate, and local governmental agencies, of public or private interests contributing to, affected by, or concerned with air pollution, and of other public and private agencies, organizations, or groups demonstrating an active interest in the field of air pollution prevention and control, as well as other individuals who are expert in this field.

(2) Each member appointed by the President shall hold office for a term of three years, except that (A) any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term, and (B) the terms of office of the members first taking office pursuant to this subsection shall expire as follows: five at the end of one year after the date of appointment, five at the end of two years after such date, and five at the end of three years after such date, as designated by the President at the time of appointment, and (C) the term of any member under the preceding provisions shall be extended until the date on which his successor's appointment is effective. None of the members shall be eligible for reappointment within one year after the end of his preceding term, unless such term was for less than three years.

(b) The Board shall 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.

(c) Such clerical and technical assistance as may be necessary to discharge the duties of the Board and such other advisory committees as hereinafter authorized shall be provided from the personnel of the Department of Health, Education, and Welfare.

(d) In order to obtain assistance in the development and implementation of the purposes of this Act including air quality criteria, recommended control techniques, standards, research and development, and to encourage the continued efforts on the part of industry to improve air quality and to develop economically feasible methods for the control and abatement of air pollution, the Secretary shall from time to time establish advisory committees. Committee members shall include, but not be limited to, persons who are knowledgeable concerning air quality from the standpoint of health, welfare, economics, or technology.

(e) The members of the Board and other advisory committees appointed pursuant to this Act who are not officers or employees of the United States while attending conferences or meetings of

the Board or while otherwise serving at the request of the Secretary,

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shall be entitled to receive compensation at a rate to be fixed by the Secretary, but not exceeding $100 per diem, including traveltime, and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703 of title 5 of the United States Code for persons in the Government service employed intermittently.

[COOPERATION BY FEDERAL AGENCIES TO CONTROL AIR POLLUTION FROM FEDERAL FACILITIES

[SEC. 111. (a) It is hereby declared to be the intent of Congress that any Federal department or agency having jurisdiction over any building, installation, or other property shall, to the extent practicable and consistent with the interests of the United States and within any available appropriations, cooperate with the Department of Health, Education, and Welfare and with any air pollution control agency in preventing and controlling the pollution of the air in any area insofar as the discharge of any matter from or by such building, installation, or other property may cause or contribute to pollution of the air in such area.

[(b) In order to control air pollution which may endanger the health or welfare of any persons, the Secretary may establish classes of potential pollution sources for which any Federal department or agency having jurisdiction over any building, installation, or other property shall, before discharging any matter into the air of the United States, obtain a permit from the Secretary for such discharge, such permits to be issued for a specified period of time to be determined by the Secretary and subject to revocation if the Secretary finds pollution is endangering the health and welfare of any persons. In connection with the issuance of such permits, there shall be submitted to the Secretary such plans, specifications, and other information as he deems relevant thereto and under such conditions as he may prescribe. The Secretary shall report each January to the Congress the status of such permits and compliance therewith.]

Control of Pollution From Federal Facilities

Sec. 111. Each department, agency, and instrumentality in the

executive, legislative, and judicial branches of the Federal Government having jurisdiction over any real property or facility, or engaged in any activity resulting in the discharge of pollutants into the air, shall comply with the applicable Federal, state, interstate, and local emission standards and with the purposes of this Act in the administration of such property, facility, or activity. The Secretary is authorized to exempt any department, agency, instrumentality, property, facility, or activity, in whole or in part, from compliance with any applicable emission standard if he determines it to be in the paramount interest of the United States to do so. An exemption may not be granted under the preceding sentence for a period in excess of one year. Nothing in the preceding sentence shall be construed to prevent the granting of additional exemptions to the same parties and with respect to the same activities upon expiration of the original exemption. The Secretary shall report each January to the Congress all exemptions from the requirements of this section granted during the preceding calendar year, together with his reason for granting each such exemption.

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Emission Standards for New Stationary Sources

Sec. 112. (a) For the purpose of preventing the occurrence of significant new air pollution problems arising from or associated with any class of new stationary sources which, because of the nature or amount of emissions therefrom, may contribute substantially to endangerment of the public health or welfare, the Secretary shall from time to time by regulation, giving appropriate consideration to technological and economic feasibility, establish standards with respect to such emissions. Such emission standards may be established only after reasonable notice and opportunity for interested parties to present their views at a public hearing. Any regulations hereunder, and amendments thereof, shall become effective on a date specified therein, which date shall be determined by the Secretary after consideration of the period reasonably necessary for compliance. The Secretary may exempt any industry or establishment, or any class thereof, from this section, upon such terms and conditions as he may find necessary to protect the public health or welfare, for the purpose of research, investigations, studies, demonstrations, or training, or for reasons of national security.

(b) Such emission standards shall provide that—

(1) If such emissions are extremely hazardous to health, no new source of such emissions shall be constructed or operated, except where (and subject to such conditions as he deems necessary and appropriate) the Secretary makes a specific exemption with respect to such construction or operation.

(2) In the case of other emissions, any new source of such emissions shall be designed and equipped to prevent and control such emissions to the fullest extent compatible with the available technology and economic feasibiity, as determined by the Secretary.

(c) (1) If, within such period as may be prescribed by the Secretary, any State or interstate air pollution control agency, adopts a plan for enforcement of the emission standards promulgated by the Secretary under this section, such plan shall, if the Secretary determines it provides adequately for the enforcement of such emission standards, be applicable within such State or other area.

(2) If a State does not adopt a plan in accordance with paragraph (1) of this subsection, the Secretary shall, after reasonable notice and a conference with representatives of appropriate Federal departments and agencies and State agencies, prepare regulations establishing an enforcement plan for such State. If, prior to the date the Secretary publishes such regulations the State has not adopted such plan, the Secretary shall promulgate such regulations.

(d) If at any time the Secretary determines that any person is violating the emission standards established by him pursuant to this section, and that the State or interstate agency is failing to carry out the plan adopted as provided in subsection (c) (1) or established as provided in subsection (c) (2), he shall notify the affected State or the interstate agency and the person violating the emission standard, and shall specify the time within which such violation must cease. If such violation does not cease within such time the Secretary may 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. The court shall have jurisdiction to enter such judgment and orders enforcing such judgment as the public interest and the equities of the case may require. The court may also assess a penalty of up to $10,000 for each

day of violation after the time specified by the Secretary pursuant to this subsection for the cessation of the violation, except that, in determining the amount of such penalty, the court shall take into account the efforts of the defendant to abate the pollution involved.

(e) Prior to establishing emission standards under subsection (a), the Secretary shall consult with appropriate Federal departments and agencies and State agencies having responsibilities related to any stationary sources to which such emission standards will be applicable.

(f) For purposes of enforcement of this section, officers or employees duly designated by the Secretary, upon presenting appropriate credentials and a written notice to the owner or person in charge, are authorized to enter, at reasonable times, any establishment which the Secretary has reason to believe is or may be in violation of regulations issued under this section to determine whether any such violation is occurring (including, for this purpose, inspection, at reasonable times, of records, files, papers, processes, controls, and facilities relevant to compliance with the regulations). A separate notice shall be given for each such inspection, but a notice shall not be required for each entry made during the period covered by the inspection. Each such inspection shall be commenced and completed with reasonable promptness.

TITLE II—NATIONAL EMISSION STANDARDS ACT

SHORT TITLE

SEC. 201. This title may be cited as the "National Emission Standards Act".

Part A—Motor Vehicle Emission and Fuel Standards

ESTABLISHMENT OF STANDARDS

SEC. 202. (a) The Secretary shall by regulation, giving appropriate consideration to technological feasibility and economic costs, prescribe as soon as practicable, standards, applicable to the emission of any kind of substance, from any class or classes of judgment cause or contribute to, or are likely to cause or to connew motor vehicles or new motor vehicle engines, which in his tribute to, air pollution which endangers the health or welfare

of any persons, and such standards shall apply to such vehicles or engines whether they are designed as complete systems or incorporate other devices to prevent or control such pollution.

(b) Any regulations initially prescribed under this section, and amendments thereto, with respect to any class of new motor vehicles or new motor vehicle engines shall become effective on the effective date specified in the order promulgating such regulations which date shall be determined by the Secretary after consideration of the period reasonably necessary for industry compliance.

PROHIBITED ACTS

SEC. 203. (a) The following acts and the causing thereof are prohibited—

(1) in the case of a manufacturer of new motor vehicles or new motor vehicle engines for distribution in commerce, [the manufacture for sale,] the sale, or the offering for sale, or the intro-

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duction or delivery for introduction into commerce, or *(in the case of any person, except as provided by regulation of the Secretary)*, the importation into the United States [for sale or resale], of any new motor vehicle or new motor vehicle engine, manufactured after the effective date of regulations under this [title] *part* which are applicable to such vehicle or engine unless [it is in conformity with] *such vehicle or engine is covered by a certificate of conformity issued (and in effect) under* regulations prescribed under this [title] *part* (except as provided in subsection (b));

(2) for any person to fail or refuse to permit access to or copying of records or to fail to make reports or provide information, required under section 207; [or]

(3) for any person to remove or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this title prior to its sale and delivery to the ultimate purchaser [.]; *or*

(4) for any manufacturer of a new motor vehicle (A) to sell any new motor vehicle to which subsection (e) of section 206 applies unless such vehicle is warranted, and a label or tag is affixed thereto, in accordance with such subsection, or (B) to fail to comply with such a warranty.

(b) (1) The Secretary may exempt any new motor vehicle or new motor vehicle engine, or class thereof, from subsection (a), upon such terms and conditions as he may find necessary to protect the public health or welfare, for the purpose of research, investigations, studies, demonstrations, or training, or for reasons of national security.

(2) A new motor vehicle or new motor vehicle engine offered for importation [by a manufacturer] *or imported by any person* in violation of subsection (a) shall be refused admission into the United States, but the Secretary of the Treasury and the Secretary of Health, Education, and Welfare may, by joint regulation, provide for deferring final determination as to admission and authorizing the delivery of such a motor vehicle or engine offered for import to the owner or consignee thereof upon such terms and conditions (including the furnishing of a bond) as may appear to them appropriate to insure that any such motor vehicle or engine will be brought into conformity with the standards, requirements, and limitations applicable to it under this [title] *part.* The Secretary of the Treasury shall, if a motor vehicle or engine is finally refused admission under this paragraph, cause disposition thereof in accordance with the customs laws unless it is exported, under regulations prescribed by such Secretary, within ninety days of the date of notice of such refusal or such additional time as may be permitted pursuant to such regulations, except that disposition in accordance with the customs laws may not be made in such manner as may result, directly or indirectly, in the sale, to the ultimate consumer, of a new motor vehicle or new motor vehicle engine that fails to comply with applicable standards of the Secretary of Health, Education, and Welfare under this [title] *part.*

(3) A new motor vehicle or new motor vehicle engine intended solely for export, and so labeled or tagged on the outside of the container and on the vehicle or engine itself, shall not be subject to the provisions of subsection (a).

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INJUNCTION PROCEEDINGS

SEC. 204. (a) The district courts of the United States shall have jurisdiction to restrain violations of paragraph (1), (2), [or] (3), *or* (*4*) of section 203(a).

(b) Actions to restrain such violations shall be brought by and in the name of the United States. In any such action, subpoenas

for witnesses who are required to attend a district court in any dictrict may run into any other district.

PENALTIES

SEC. 205. Any person who violates paragraph (1), (2), [or] (3), *or* (*4*) of section 203(a) shall be subject to a fine of not more than $1,000. Such violation with respect to sections 203(a)(1) [and], 203(a)(3), *or 203*(*a*)(*4*) shall constitute a separate offense with respect to each new motor vehicle or new motor vehicle engine.

Motor Vehicle and Motor Vehicle Engine Compliance Testing and Certification

SEC. 206. (a) [Upon application of the manufacturer, the] *The* Secretary shall test, or require to be tested [,] in such manner as he deems appropriate, any new motor vehicle or new motor vehicle engine submitted by [such] *a* manufacturer to determine whether such vehicle or engine conforms with the regulations prescribed under section 202 of this [title] *Act.* If such vehicle or engine conforms to such regulations, the Secretary shall issue a certificate of conformity [,] upon such terms, and for such period [not less than one year] (*not in excess of one year*), as he may prescribe.

[(b) Any new motor vehicle or any motor vehicle engine sold by such manufacturer which is in all material respects substantially the same construction as the test vehicle or engine for which a certificate has been issued under subsection (a), shall for the purposes of this Act be deemed to be in conformity with the regulations issued under section 202 of this title.]

(*b*)(*1*) *In order to determine whether new motor vehicles or new motor vehicles engines being manufactured by a manufacturer do in fact conform with the regulations with respect to which the certificate of conformity was issued, the Secretary is authorized to test such vehicles or engines. Such tests may be conducted by the Secretary directly or in accordance with conditions specified by the Secretary, by the manufacturer.*

(*2*)(*A*) *If, based on such tests, the Secretary determines that such vehicles or engines do not conform with the regulations with respect to which the certificate of conformity was issued, he may suspend or revoke such certificate in whole or in part, and shall so notify the manufacturer. Such suspension or revocation shall*

apply in the case of any new motor vehicles or new motor vehicle engines manufactured after the date of such notification (or manufactured before such date if still in the hands of the manufacturer), and until such time as the Secretary finds that vehicles and engines manufactured by the manufacturer do conform to such regulations. If, during any period of suspension or revocation, the Secretary finds that a vehicle or engine actually conforms to such regulations, he shall issue a certificate of conformity applicable to such vehicle or engine.

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(B) (i) At the request of any manufacturer the Secretary shall grant such manufacturer a hearing as to whether the tests conducted on the vehicles or engines are appropriate, whether any sampling methods which have been applied are appropriate, or whether the tests have been properly conducted, and make a determination on the record with respect to such suspension or revocation; but suspension or revocation under subparagraph (A) shall not be stayed by reason of such hearing.

(ii) In any case of actual controversy as to the validity of any determination under clause (i), the manufacturer may at any time prior to the sixtieth day after such determination is made file a petition with the United States court of appeals for the Circuit wherein such manufacturer resides or has his principal place of business, for a judicial review of such determination. A copy of the petition shall be forthwith transmitted by the clerk of the court to the Secretary or other officer designated by him for that purpose. The Secretary thereupon shall file in the court the record of the proceedings on which the Secretary based his determination, as provided in section 2112 of title 28 of the United States Code.

(iii) If the petition applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Secretary, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Secretary, in such manner and upon such terms and conditions as the court may deem proper. The Secretary may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or

setting aside of his original determination, with the return of such additional evidence.

(iv) Upon the filing of the petition referred to in clause (ii), the court shall have jurisdiction to review the order in accordance with chapter 7 of title 5, United States Code, and to grant appropriate relief as provided in such chapter.

(v) The judgment of the court affirming or setting aside in whole or in part, any such determination of the Secretary shall be final, subject to review by the Supreme Court of the United States upon certiorari or certification as provided in section 1254 of title 28 or the United States Code.

(vi) Any action instituted under this subparagraph shall survive, notwithstanding any change in the person occupying the office of Secretary or any vacancy in such office.

(c) For purposes of enforcement of this section, officers or employees duly designated by the Secretary, upon presenting appropriate credentials and a written notice to the manufacturer or person in charge are authorized (1) to enter, at reasonable times, any plant or other establishment of such manufacturer, for the purpose of conducting tests of vehicles or engines coming off the production line, or (2) to inspect, at reasonable times, records, files, papers, processes, controls, and facilities used by such manufacturer in conducting tests under regulations of the Secretary. A separate notice shall be given for each such inspection, but a notice shall not be required for each entry made during the period covered by the inspection. Each such inspection shall be commenced and completed with reasonable promptness.

(d) The Secretary shall establish methods and procedures for making tests under this section and inform the manufacturers with respect thereto.

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(e) Every new motor vehicle or new motor vehicle engine sold by a manufacturer shall be warranted to have systems or devices for the control or reduction of substances emitted from the vehicle or engine that are substantially of the same construction as systems or devices, on test vehicles or test engines, for which a certificate has been issued to the manufacturer under subsection (a), and the manufacturer shall furnish with each vehicle or engine written instructions for necessary maintenance by the ultimate purchaser. In addition, the manufacturer shall indicate by means of a label or tag permanently affixed to such vehicle or

engine that such vehicle or engine is covered by a certificate of conformity issued for the purpose of assuring achievement of emissions standards prescribed under section 202 of this Act. Such label or tag shall contain such other information relating to control of motor vehicle emissions as the Secretary shall prescribe by regulation.

RECORDS AND REPORTS

SEC. 207. (a) Every manufacturer shall establish and maintain such records, make such reports, and provide such information as the Secretary may reasonably require to enable him to determine whether such manufacturer has acted or is acting in compliance with this [title] *part* and regulations thereunder and shall, upon request of an officer or employee duly designated by the Secretary, permit such officer or employee at reasonable times to have access to and copy such records.

(b) All information reported or otherwise obtained by the Secretary or his representative pursuant to subsection (a), which information contains or relates to a trade secret or other matter referred to in section 1905 of title 18 of the United States Code, shall be considered confidential for the purpose of such section 1905, except that such information may be disclosed to other officers or employees concerned with carrying out this Act or when relevant in any proceeding under this Act. Nothing in this section shall authorize the withholding of information by the Secretary or any officer or employee under his control, from the duly authorized committees of the Congress.

STATE STANDARDS

SEC. 208. (a) No State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this [title] *part*. No State shall require certification, inspection, or any other approval relating to the control of emissions from any new motor vehicle or new motor vehicle engine as condition precedent to the initial retail sale, titling (if any), or registration of such motor vehicle, motor vehicle engine, or equipment.

(b) The Secretary shall, after notice and opportunity for public hearing, waive application of this section to any State which has adopted standards (other than crankcase emission standards) for

the control of emissions from new motor vehicles or new motor vehicle engines prior to March 30, 1966, unless he finds that such State does not require standards more stringent than applicable Federal standards to meet compelling and extraordinary conditions or that such State standards and accompanying enforcement procedures are not consistent with section 202(a) of this [title] *part.*

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(c) Nothing in this [title] *part* shall preclude or deny to any State or political subdivision thereof the right otherwise to control, regulate, or restrict the use, operation, or movement of registered or licensed motor vehicles.

FEDERAL ASSISTANCE IN DEVELOPING VEHICLE INSPECTION PROGRAMS

SEC. 209. The Secretary is authorized to make grants to appropriate State air pollution control agencies in an amount up to two-thirds of the cost of developing meaningful uniform motor vehicle emission device inspection and emission testing programs except that (1) no grant shall be made for any part of any State vehicle inspection program which does not directly relate to the cost of the air pollution control aspects of such a program; and (2) no such grant shall be made unless the Secretary of Transportation has certified to the Secretary that such program is consistent with any highway safety program developed pursuant to section 402 of title 23 of the United States Code.

REGISTRATION OF FUEL ADDITIVES

SEC. 210. (a) The Secretary may by regulation designate any fuel or fuels (including fuels used for purposes other than motor vehicles), and after such date or dates as may be prescribed by him, no manufacturer or processor of any such fuel may deliver any such fuel for introduction into interstate commerce or to another person who, it can reasonably be expected, will deliver such fuel for such introduction unless the manufacturer of such fuel has provided the Secretary with the information required under subsection (b)(1) of this section and unless any additive contained in such fuel has been registered with the Secretary in accordance with subsection (b)(2) of this section.

(b) For the purposes of this section the Secretary shall require (1) the manufacturer of such fuel to notify him as to the com-

mercial identifying name and manufacturer of any additive contained in such fuel; the range of concentration of such additive or additives in the fuel; and the purpose in the use of such additive; and (2) the manufacturer of any such additive to notify him as to the chemical composition of such additive or additives as indicated by compliance with clause (1) above, the recommended range of concentration of such additive, if any, the recommended purpose in the use of such additive, and to the extent such information is available or becomes available, the chemical structure of such additive or additives. Upon compliance with clauses (1) and (2), including assurances that any change in the above information will be provided to the Secretary, the Secretary shall register such fuel additive.

(c) All information reported or otherwise obtained by the Secretary or his representative pursuant to subsection (b) *or subsection (h),* which information contains or relates to a trade secret or other matter referred to in section 1905 of title 18 of the United States Code, shall be considered confidential for the purpose of such section 1905, except that such information may be disclosed to other officers or employees of the United States concerned with carrying out this Act or when relevant in any proceeding under this [title] *part.* Nothing in this section shall authorize the withholding of information by the Secretary or any officer or employee under his control, from the duly authorized committees of the Congress.

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(d) Any person who violates subsection (a) *or the regulations prescribed under subsection (f) (2) or fails to furnish any information required by the Secretary within the period specified by him pursuant to subsection (h)* shall forfeit and pay to the United States a civil penalty of [$1,000] *$10,000* for each and every day of the continuance of such violation *or failure,* which shall accrue to the United States and be recovered in a civil suit in the name of the United States, brought in the district where such person has his principal office or in any district in which he does business. The Secretary may, upon application therefor, remit or mitigate any forfeiture provided for in this subsection, and he shall have authority to determine the facts upon all such applications.

(e) It shall be the duty of the various United States attorneys, under the direction of the Attorney General of the United States, to prosecute for the recovery of such forfeitures.

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(f)(1) The Secretary may, on the basis of specific findings made in accordance with subsection (g), establish standards respecting the composition or the chemical or physical properties of any fuel or fuel additive by specifying limitations on (or providing for elimination of) ingredients (including additives) or on the physical or chemical characteristics of any fuel or class of fuels (A) if any emission products of such fuel or fuel additive will endanger the public health or welfare, or (B) if such fuel or fuel additive will impair to a significant degree the performance of any emission control device or system which is in general use, or which the Secretary finds has been developed to a point where in a reasonable time it will be in general use, on a significant number of motor vehicles or motor vehicle engines.

(2) For the purpose of carrying out such standards the Secretary may prescribe regulations prohibiting the manufacture for sale, the sale, the offering for sale, or the delivery of any fuel or fuel additive unless it is in conformity with such standards as may be applicable to it.

(3) This subsection shall not apply to aviation fuel or additives thereto.

(g)(1) Any standards pursuant to clause (A) of subsection (f)(1) shall be established by the Secretary on the basis of specific findings derived from relevant medical and scientific evidence, including (in the case of a standard with respect to a motor vehicle fuel or fuel additive) a finding that it is not otherwise technologically or economically feasible to achieve the emission standards established pursuant to section 202 of this Act.

(2) Any standards pursuant to clause (B) of subsection (f)(1) shall be established by the Secretary on the basis of specific findings derived from scientific evidence, including a cost-benefit analysis comparing emission control devices or systems which are or will be in general use and require the proposed standard, with emission control devices or systems which are or will be in general use and do not require the proposed standard.

(h) For the purpose of making his findings under subsection (g), the Secretary may require the manufacturer of any fuel or fuel additive and the manufacturer of any motor vehicle or motor vehicle engine to furnish any information which has been developed concerning the emissions from motor vehicles resulting from the use of any fuel or fuel additive, or the effect of such use on the performance of any emission control device or system.

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NATIONAL EMISSIONS STANDARDS STUDY

SEC. 211. (a) The Secretary shall submit to the Congress, no later than two years after the effective date of this section, a comprehensive report on the need for and effect of national emission standards for stationary sources. Such report shall include: (A) information regarding identifiable health and welfare effects from single emission sources; (B) examples of specific plants, their location, and the contaminant or contaminants which, due to the amount or nature of emissions from such facilities, constitute a danger to public health or welfare; (C) an up-to-date list of those industries and the contaminant or contaminants which, in his opinion, should be subject to such national standards; (D) the relationship of such national emission standards to ambient air quality, including a comparison of situations wherein several plants emit the same contaminants in an air region with those in which only one such plant exists; (E) an analysis of the cost of applying such standards; and (F) such other information as may be appropriate.

(b) The Secretary shall conduct a full and complete investigation and study of the feasibility and practicability of controlling emissions from jet and piston aircraft engines and of establishing national emission standards with respect thereto, and report to Congress the results of such study and investigation within one year from the date of enactment of the Air Quality Act of 1967; together with his recommendations.

DEFINITIONS FOR [TITLE II] *PART A*

SEC. 212. As used in this [title] *part*—

(1) The term "manufacturer" as used in sections 203, 206, 207, and 208 means any person engaged in the manufacturing or assembling of new motor vehicles or new motor vehicle engines, or importing such vehicles or engines for resale, or who acts for and is under the control of any such person in connection with the distribution of new motor vehicles or new motor vehicle engines, but shall not include any dealer with respect to new motor vehicles or new motor vehicle engines received by him in commerce.

(2) The term "motor vehicle" means any self-propelled vehicle designed for transporting persons or property on a street or highway.

(3) [The] *Except with respect to vehicles or engines imported or offered for importation, the* term "new motor vehicle" means

a motor vehicle the equitable or legal title to which has never been transferred to an ultimate purchaser; and the term "new motor vehicle engine" means an engine in a new motor vehicle or a motor vehicle engine the equitable or legal title to which has never been transferred to the ultimate purchaser; *and with respect to imported vehicles or engines, such terms mean a motor vehicle and engine, respectively, manufactured after the effective date of a regulation issued under section 202 which is applicable to such vehicle or engine (or which would be applicable to such vehicle or engine had it been manufactured for importation into the United States).*

(4) The term "dealer" means any person who is engaged in the sale or the distribution of new motor vehicles or new motor vehicle engines to the ultimate purchaser.

(5) The term "ultimate purchaser" means, with respect to any new motor vehicle or new motor vehicle engine, the first person who in good

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faith purchases such new motor vehicle or new engine for purposes other than resale.

(6) The term "commerce" means (A) commerce between any place in any State and any place outside thereof; and (B) commerce wholly within the District of Columbia.

Part B—Aircraft Emission Standards

Establishment of Standards

Sec. 231. (a) The Secretary shall by regulation, giving appropriate consideration to technological feasibility and economic costs, prescribe as soon as practicable standards applicable to the emission of any kind of substance from any class or classes of aircraft or aircraft engines which in his judgment cause or contribute to, or are likely to cause or to contribute to, air pollution which endangers the health or welfare of any persons, and such standards shall apply to such aircraft or aircraft engines whether they are designed as complete systems or incorporate other devices to prevent or control such pollution. Any such standards shall include requirements with respect to the manufacturers' warranty of such systems or devices necessary for the purposes of this Act.

(b) Any regulations initially prescribed under this section, and

amendments thereto, with respect to any class of aircraft or aircraft engines shall become effective on the effective date specified in the order promulgating such regulations, which date shall be determined by the Secretary after consideration of the period reasonably necessary for compliance.

(c) Any such regulations, or amendments thereto, with respect to aircraft, shall be prescribed only after consultation with the Federal Aviation Administrator in order to assure appropriate consideration for aircraft safety. The Administrator shall apply such standards and regulations in the certification and inspection of aircraft or aircraft engines pursuant to his authority under the Federal Aviation Act of 1958.

State Standards

STATE STANDARDS

Sec. 232. (a) No State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from aircraft or aircraft engines subject to this part. No state shall require certification, inspection, or any other approval relating to the control of emissions from any aircraft or aircraft engine as a condition precedent to the initial retail sale, titling (if any), or registration of such aircraft or aircraft engine.

TITLE III—GENERAL

ADMINISTRATION

SEC. 301. (a) The Secretary is authorized to prescribe such regulations as are necessary to carry out his functions under this Act. The Secretary may delegate to any officer or employee of the Department of Health, Eductaion, and Welfare such of his powers and duties under this Act, except the making of regulations, as he may deem necessary or expedient.

(b) Upon the request of an air pollution control agency, personnel of the Public Health Service may be detailed to such agency for the purpose of carrying out the provisions of this Act. The provisions of

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section 214(d) of the Public Health Service Act shall be applicable with respect to any personnel so detailed to the same extent

as if such personnel had been detailed under section 214(b) of that Act.

(c) Payments under grants made under this Act may be made in installments, and in advance or by way of reimbursement, as may be determined by the Secretary.

DEFINITIONS

SEC. 302. When used in this Act—

(a) The term "Secretary" means the Secretary of Health, Education, and Welfare.

(b) The term "air pollution control agency" means any of the following:

(1) A single State agency designated by the Governor of that State as the official State air pollution control agency for purposes of this Act;

(2) An agency established by two or more States and having substantial powers or duties pertaining to the prevention and control of air pollution;

(3) A city, county, or other local government health authority, or, in the case of any city, county, or other local government in which there is an agency other than the health authority charged with responsibility for enforcing ordinances or laws relating to the prevention and control of air pollution, such other agency; or

(4) An agency of two or more municipalities located in the same State or in different States and having substantial powers or duties pertaining to the prevention and control of air pollution.

(c) The term "interstate air pollution control agency" means—

(1) an air pollution control agency established by two or more States, or

(2) an air pollution control agency of two or more municipalities located in different States.

(d) The term "State" means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, and American Samoa.

(e) The term "person" includes an individual, corporation, partnership, association, State, municipality, and political subdivision of a State.

(f) The term "municipality" means a city, town, borough, county, parish, district, or other public body created by or pursuant to State law.

(g) All language referring to adverse effects on welfare shall include but not be limited to injury to agricultural crops and livestock, damage to and the deterioration of property and hazards to transportation.

OTHER AUTHORITY NOT AFFECTED

SEC. 303. (a) Except as provided in subsection (b) of this section, this Act shall not be construed as superseding or limiting the authorities and responsibilities, under any other provision of law, of the Secretary or any other Federal officer, department, or agency.

(b) No appropriation shall be authorized or made under section 301, 311, or 314 of the Public Health Service Act for any fiscal year after the fiscal year ending June 30, 1964, for any purpose for which appropriations may be made under authority of this Act.

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RECORDS AND AUDIT

SEC. 304. (a) Each recipient of assistance under this Act shall keep such records as the Secretary shall prescribe, including records which fully disclose the amount and disposition by such recipient of the proceeds of such assistance, the total cost of the project or undertaking in connection with which such assistance is given or used, and the amount of that portion of the cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

(b) The Secretary of Health, Education, and Welfare and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access for the purpose of audit and examinations to any books, documents, papers, and records of the recipients that are pertinent to the grants received under this Act.

COMPREHENSIVE ECONOMIC COST STUDIES

SEC. 305. (a) In order to provide the basis for evaluating programs authorized by this Act and the development of new programs and to furnish the Congres with the information necessary for authorization of appropriations by fiscal years beginning after June 30, 1969, the Secretary, in cooperation with State, interstate, and local air pollution control agencies, shall make a detailed es-

timate of the cost of carrying out the provisions of this Act; a comprehensive study of the cost of program implementation by affected units of government; and a comprehensive study of the economic impact of air quality standards on the Nation's industries, communities, and other contributing sources of pollution, including an analysis of the national requirements for and the cost of controlling emissions to attain such standards of air quality as may be established pursuant to this Act or applicable State law. The Secretary shall submit such detailed estimate and the results of such comprehensive study of cost for the five-year period beginning July 1, 1969, and the results of such other studies, to the Congress not later than January 10, 1969, and shall submit a reevaluation of such estimate and studies annually thereafter.

(b) The Secretary shall also make a complete investigation and study to determine (1) the need for additional trained State and local personnel to carry out programs assisted pursuant to this Act and other programs for the same purpose as this Act; (2) means of using existing Federal training programs to train such personnel; and (3) the need for additional trained personnel to develop, operate and maintain those pollution control facilities designed and installed to implement air quality standards. He shall report the results of such investigation and study to the President and the Congress not later than July 1, 1969.

ADDITIONAL REPORTS TO CONGRESS

SEC. 306. Not later than six months after the effective date of this section and not later than January 10 of each calendar year beginning after such date, the Secretary shall report to the Congress on measures taken toward implementing the purpose and intent of this Act including, but not limited to, (1) the progress problems associated with control of automotive exhaust emissions and the research efforts re-

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lated thereto; (2) the development of air quality criteria and recommended emission control requirements; (3) the status of enforcement actions taken pursuant to this Act; (4) the status of [State] ambient air standards setting, including such plans for implementation and enforcement as have been developed; (5) the extent of development and expansion of air pollution monitoring systems; (6) progress and problems related to development of new and improved control techniques; (7) the development of

quantitative and qualitative instrumentation to monitor emissions and air quality; (8) standards set or under consideration pursuant to title II of this Act; (9) the status of State, interstate, and local pollution control programs established pursuant to and assisted by this Act; and (10) the reports and recommendations made by the President's Air Quality Advisory Board.

LABOR STANDARDS

SEC. 307. The Secretary shall take such action as may be necessary to insure that all laborers and mechanics employed by contractors or subcontractors on projects assisted under this Act shall be paid wages at rates not less than those prevailing for the same type of work on similar construction in the locality as determined by the Secretary of Labor, in accordance with the Act of March 3, 1961, as amended, known as the Davis-Bacon Act (46 Stat. 1494; 40 U.S.C. 276a-276a-5). The Secretary of Labor shall have, with respect to the labor standards specified in this subsection, the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 F.R. 3176; 64 Stat. 1267) and section 2 of the Act of June 13, 1934, as amended (48 Stat. 948; 40 U.S.C. 276c).

SEPARABILITY

SEC. 308. If any provision of this Act, or the application of any provision of this Act to any person or circumstance, is held invalid, the application of such provision to other persons or circumstances, and the remainder of this Act, shall not be affected thereby.

APPROPRIATIONS

SEC. 309. There are hereby authorized to be appropriated to carry out this Act, other than sections 103(d) and 104, $74,000,000 for the fiscal year ending June 30, 1968, $95,000,000 for the fiscal year ending June 30, 1969, [and] $134,300,000 for the fiscal year ending June 30, 1970, *$125,000,000 for the fiscal year ending June 30, 1971, $150,000,000 for the fiscal year ending June 30, 1972, and $200,000,000 for the fiscal year ending June 30, 1973. Such portion as the Secretary may determine, but not more than 1 per centum, of any appropriation for grants, contracts, or other payments under any provision of this Act for any fiscal year*

(directly, or by grants or contracts) of any program authorized beginning after June 30, 1970, shall be available for evaluation by this Act.

SHORT TITLE

SEC. 310. This Act may be cited as the "Clean Air Act."

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FEDERAL AVIATION ACT OF 1958

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TITLE VI—SAFETY REGULATION OF CIVIL AERONAUTICS

SEC. 601. General safety powers and duties.
(a) Minimum standards; rules and regulations.
(b) Needs of service to be considered; classification of standards, etc.
(c) Exemptions.
(*d*) *Aviation fuel standards.*

TITLE VI—SAFETY REGULATION OF CIVIL AERONAUTICS

GENERAL SAFETY POWERS AND DUTIES

MINIMUM STANDARDS; RULES AND REGULATIONS

SEC. 601. (a) The Administrator is empowered and it shall be his duty to promote safety of flight of civil aircraft in air commerce by prescribing and revising from time to time:

(1) Such minimum standards governing the design, materials, workmanship, construction, and performance of aircraft, aircraft engines, and propellers as may be required in the interest of safety;

(2) Such minimum standards governing appliances as may be required in the interest of safety;

(3) Reasonable rules and regulations and minimum standards governing, in the interest of safety, (A) the inspection, servicing, and overhaul of aircraft, aircraft engines, propellers, and appliances; (B) the equipment and facilities for such inspection, servicing, and overhaul; and (C) in the discretion of the Administrator, the periods for, and the manner in which such inspection,

servicing, and overhaul shall be made, including provision for examinations and reports by properly qualified private persons whose examinations or reports the Administrator may accept in lieu of those made by its officers and employees;

(4) Reasonable rules and regulations governing the reserve supply of aircraft, aircraft engines, propellers, appliances, and aircraft fuel and oil, required in the interest of safety, including the reserve supply of aircraft fuel and oil which shall be carried in flight;

(5) Reasonable rules and regulations governing, in the interest of safety, the maximum hours or periods of service of airmen, and other employees, of air carriers; and

(6) Such reasonable rules and regulations, or minimum standards, governing other practices, methods, and procedure, as the Administrator may find necessary to provide adequately for national security and safety in air commerce.

NEEDS OF SERVICE TO BE CONSIDERED; CLASSIFICATION OF STANDARDS, ETC.

(b) In prescribing standards, rules, and regulations, and in issuing certificates under this title, the Administrator shall give full consideration to the duty resting upon air carriers to perform their services

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with the highest possible degree of safety in the public interest and to any differences between air transportation and other air commerce; and he shall make classifications of such standards, rules, regulations, and certificates appropriate to the differences between air transportation and other air commerce. The Administrator may authorize any aircraft, aircraft engine, propeller, or appliance, for which an aircraft certificate authorizing use thereof in air transportation has been issued, to be used in other air commerce without the issuance of a further certificate. The Administrator shall exercise and perform his powers and duties under this Act in such manner as will best tend to reduce or eliminate the possibility of, or recurrence of, accidents in air transportation, but shall not deem himself required to give preference to either air transportation or other air commerce in the administration and enforcement of this title.

EXEMPTIONS

(c) The Administrator from time to time may grant exemptions from the requirements of any rule or regulation prescribed under this title if he finds that such action would be in the public interest.

Aviation Fuel Standards

(d) The Administrator may prescribe, and from time to time revise, regulations (1) establishing standards governing the composition or the chemical or physical properties of any aircraft fuel or fuel additive for the purpose of controlling or eliminating aircraft emissions which the Secretary of Health, Education, and Welfare (pursuant to section 231 of the Clean Air Act) determines endanger the public health or welfare, and (2) providing for the implementation and enforcement of such standards.

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PROHIBITIONS

VIOLATIONS OF TITLE

SEC. 610.(a) It shall be unlawful—

(1) For any person to operate in air commerce any civil aircraft for which there is not currently in effect an airworthiness certificate, or in violation of the terms of any such certificate;

(2) For any person to serve in any capacity as an airman in connection with any civil aircraft, aircraft engine, propeller or appliance used or intended for use, in air commerce without an airman certificate authorizing him to serve in such capacity, or in violation of any term, condition, or limitation thereof, or in violation of any order, rule, or regulation issued under this title;

(3) For any person to employ for service in connection with any civil aircraft used in air commerce an airman who does not have an airman certificate authorizing him to serve in the capacity for which he is employed;

(4) For any person to operate as an air carrier without an air carrier operating certificate, or in violation of the terms of any such certificate;

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(5) For any person to operate aircraft in air commerce in

violation of any other rule, regulation, or certificate of the Administrator under this title; and

(6) For any person to operate a seaplane or other aircraft of United States registry upon the high seas in contravention of the regulations proclaimed by the President pursuant to section 1 of the Act entitled "An Act to authorize the President to proclaim regulations for preventing collisions at sea", approved October 11, 1951 (Public Law 172, Eighty-second Congress; 65 Stat. 406);

(7) For any person holding an air agency or production certificate, to violate any term, condition, or limitation thereof, or to violate any order, rule, or regulation under this title relating to the holder of such certificate; [and]

(8) For any person to operate an airport serving air carriers certificated by the Civil Aeronautics Board without an airport operating certificate, or in violation of the terms of any such certificate [.]; *and*

(9) For any person to manufacture, deliver, sell, or offer for sale, any aviation fuel or fuel additive in violation of any regulation prescribed under section 601 (d).

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ADDITIONAL VIEWS OF HON. LIONEL VAN DEERLIN, HON. RICHARD L. OTTINGER AND HON. ROBERT O. TIERNAN ON H.R. 17255

H.R. 17255 is woefully inadequate to meet the menace of motor vehicle-generated air pollution.

During executive markup of this bill, we offered a series of amendments designed to strengthen the legislation, to equip it to deal more effectively with the smog that is threatening to strangle our urban areas.

We recognize that some of the reforms which we proposed and which will be reoffered as floor amendments to the bill, may seem drastic at first glance. But the problem of air polluted by automobiles has become, in our view, so massive that it cries out for drastic remedies.

The old solutions won't work, because as far as the automobile inventory is concerned we're involved in a stacked numbers game. Even with the newly announced Federal standards for emission control, the amount of pollutants from automotive sources is going

to increase with the number of cars on the road. Last year, for the first time, there were more than 100 million motor vehicles in this country, and by 1980 that figure is expected to rise to 150 million.

We are not impressed by the wails of the auto industry that meaningful improvements in their product pose insurmountable cost and engineering problems. We listened to the same complaints back in 1967, when Congress agreed to permit California to depart from national auto emission norms in setting and enforcing more stringent controls. The industry demonstrated then that it has the expertise and the know-how to make just about any change for the better when the public demand is great enough.

Earth Day—barely a month ago—and the many other manifestations for a cleaner environment have given us, or at least should have given us, a reasonably concrete expression of public feeling.

IS THE INTERNAL COMBUSTION ENGINE REALLY NECESSARY?

A few years ago, we might have been reluctant to support, much less offer, any proposal so sweeping as to contemplate the outright abolition of the internal combustion engine.

But times have changed, and this proposal is not nearly so startling today.

Just last year, the California State Senate, a legislative body with long experience in combating smog, approved, by a record vote of 25 to 6, legislation which would have completely barred new internal combustion engines from California by 1975. The measure died in a State Assembly committee, but is being revived this year.

An amendment which will be offered on the floor is actually less far-reaching than the California plan. It would at least give the auto industry a chance to clean up the internal combustion engines. If the

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existing engines could not measure up, they would gradually be phased out, starting with the dirtiest, largest horsepower.

Current emission standards are based on what the inherently polluting internal combustion engine can achieve. The amendment would set standards on the basis of the cleanest feasible propulsion system and leave responsibility for meeting the standards where it belongs—in the auto industry. If the standards could not be met, the biggest engines packing 375 or more horsepower (and

comprising less than 5 percent of new car sales) would be phased out in 1975—the terminal year for all internal combustion engines in the California bill. Under the House amendment, the last of the internal combustion and any other high polluting engines would not be ruled off production lines until 1978, and then only if they could not match the peak performance of alternative systems such as steam and gas turbine.

As for the other systems, there is compelling evidence that despite the protestations of Detroit they can be mass produced at little or no additional cost to consumers. To be disabused of any notion that this is not possible, one need only glance at the findings of in the landmark study, The Search For a Low-Emission Vehicle, prepared last year by the staff of the Senate Commerce Committee.

In effect, the amendment tells the auto industry to either shape up or devise another way of powering our cars. It is direct action, striking at the basic cause of the pollution problem.

But more immediate relief is also needed, and other amendments will be introduced to tighten up the provisions of the bill dealing with existing pollution control devices and fuel composition.

HOW EFFECTIVE ARE EMISSION CONTROL DEVICES?

Today, we have no assurance that the control devices required by law meet even the present minimal standards. Tests for Federal and State certification of new vehicles are performed on prototype models, with no followup to determine the effectiveness of the devices after they are operational.

The skimpy data available are not very reassuring. One Federal study showed that devices in 57 percent of cars owned by the Hertz rental agency were not living up to their billing as smog deterrents, after only 11,000 miles in use.

We propose to add a new dimension to quality control of the devices by providing for voluntary Federal inspections after the devices have been in service for at least 4,000 miles. If a defect pattern is uncovered, the manufacturer would be required to correct it at his own expense, and HEW certification of the device would be suspended until the defect was corrected. Most auto engineers agree the effectiveness of an individual device cannot be adequately gauged until the automobile has been broken in—after it has been driven at least 4,000 miles.

A third amendment would make California's relatively stringent

SHOULD CALIFORNIA'S STANDARDS BE ADOPTED NATIONALLY?

auto emission standards for 1971, 1972, and 1974 applicable nationwide. Otherwise, the limited 1970 standards set by HEW for hydrocarbons and carbon monoxide will remain unchanged until 1975.

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Air pollution intrudes just as much on the quality of life in New York as it does in Los Angeles, and we see no reason why the residents of New York should be denied the benefits of the California standards.

Surely, the auto industry would accept this as the most reasonable of proposals, since it has already obligated itself to produce the cleaner cars for California and, therefore, should have little difficulty in doing the same thing for the other 90 percent of its market.

A table comparing the standards set by HEW and California follows:

COMPARISON OF EMISSION RECOMMENDATIONS
(In grams per mile)

	Current 1970 model	California			HEW	
		1971	1972	1974	1973	1975
Hydrocarbons	2.2	2.2	1.5	1.5	2.2	0.5
Carbon monoxide	23.0	23.0	23.0	23.0	23.0	11.0
Oxides of nitrogen		[1] 4.0	3.0	1.3	3.0	.75

[1] The regulation of hydrocarbons and carbon monoxide has increased the emission of oxides of nitrogen beyond the level of the unregulated internal combustion engine.

In passing, we will comment briefly on changes made by the committee in the original administration Air Quality bill, H.R. 15848. A major element in the bill affecting automotive pollution dealt with the regulation of fuel composition.

Unfortunately, this key section has been, in our view, significantly weakened by the committee in H.R. 17255. In fact, the fuel oil composition provision in H.R. 17255 may be almost totally unworkable.

As Democrats, in a Congress led by Democrats, this causes us some anguish.

An amendment to restore the administration version of the fuel composition section of the bill will be offered on the floor.

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