of air quality in various areas throughout the country including the gulf coast region, such study to include analysis of liquid and solid aerosols and other fine particulate matter and contribution of such substances to visibility and public health problems in such areas, with Administrator to use environmental health experts from the National Institutes of Health and other outside agencies and organizations.

RAILROAD EMISSION STUDY

Pub. L. 95-95, title IV, §404, Aug. 7, 1977, 91 Stat. 793, as amended by H. Res. 549, Mar. 25, 1980, directed Administrator of EPA to conduct a study and investigation of emissions of air pollutants from railroad locomotives, locomotive engines, and secondary power sources on railroad rolling stock, in order to determine extent to which such emissions affect air quality in air quality control regions throughout the United States, technological feasibility and current state of technology for controlling such emissions, and status and effect of current and proposed State and local regulations affecting such emissions, and within one hundred and eighty days after commencing such study and investigation, Administrator to submit a report of such study and investigation, together with recommendations for appropriate legislation, to Senate Committee on Environment and Public Works and House Committee on Energy and Commerce.

STUDY AND REPORT CONCERNING ECONOMIC APPROACHES TO CONTROLLING AIR POLLUTION

Pub. L. 95–95, title IV, §405, Aug. 7, 1977, 91 Stat. 794, directed Administrator, in conjunction with Council of Economic Advisors, to undertake a study and assessment of economic measures for control of air pollution which could strengthen effectiveness of existing methods of controlling air pollution, provide incentives to abate air pollution greater than that required by Clean Air Act, and serve as primary incentive for controlling air pollution problems not addressed by Clean Air Act, and directed that not later than 2 years after Aug. 7, 1977, Administrator and Council conclude study and submit a report to President and Congress.

NATIONAL INDUSTRIAL POLLUTION CONTROL COUNCIL

For provisions relating to establishment of National Industrial Pollution Control Council, see Ex. Ord. No. 11523, Apr. 9, 1970, 35 F.R. 5993, set out as a note under section 4321 of this title.

FEDERAL COMPLIANCE WITH POLLUTION CONTROL STANDARDS

For provisions relating to responsibility of head of each Executive agency for compliance with applicable pollution control standards, see Ex. Ord. No. 12088, Oct. 13, 1978, 43 F.R. 47707, set out as a note under section 4321 of this title.

EXECUTIVE ORDER No. 10779

Ex. Ord. No. 10779, Aug. 21, 1958, 23 F.R. 6487, which related to cooperation of Federal agencies with State and local authorities, was superseded by Ex. Ord. No. 11282, May 26, 1966, 31 F.R. 7663, formerly set out under section 7418 of this title.

EXECUTIVE ORDER No. 11507

Ex. Ord. No. 11507, Feb. 4, 1970, 35 F.R. 2573, which provided for prevention, control, and abatement of air pollution at Federal facilities, was superseded by Ex. Ord. No. 11752, Dec. 17, 1973, 38 F.R. 34793, formerly set out as a note under section 4331 of this title.

§ 7402. Cooperative activities

(a) Interstate cooperation; uniform State laws; State compacts

The Administrator shall encourage cooperative activities by the States and local govern-

ments 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) Federal cooperation

The Administrator 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) Consent of Congress to compacts

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 November 21, 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.

(July 14, 1955, ch. 360, title I, §102, formerly §2, as added Pub. L. 88–206, §1, Dec. 17, 1963, 77 Stat. 393; renumbered §102, Pub. L. 89–272, title I, §101(3), Oct. 20, 1965, 79 Stat. 992; amended Pub. L. 90–148, §2, Nov. 21, 1967, 81 Stat. 485; Pub. L. 91–604, §15(c)(2), Dec. 31, 1970, 84 Stat. 1713.)

CODIFICATION

Section was formerly classified to section 1857a of this title.

PRIOR PROVISIONS

Provisions similar to those in the first clause of subsec. (a) of this section were contained in subsec. (b)(1) of a prior section 1857a, of this title, act July 14, 1955, ch. 360, §2, 69 Stat. 322, prior to the general amendment of this chapter by Pub. L. 88-206.

AMENDMENTS

1970—Subsecs. (a), (b). Pub. L. 91–604 substituted "Administrator" for "Secretary" wherever appearing.

1967—Subsec. (c). Pub. L. 90–148 inserted declaration that 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 for purposes of codification was changed to November 21, 1967, the date of approval of such Act, relating 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.

§ 7403. Research, investigation, training, and other activities

(a) Research and development program for prevention and control of air pollution

The Administrator 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, demonstrations, surveys, and studies relating to the causes, effects (including health and welfare 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; and
- (5) conduct and promote coordination and acceleration of training for individuals relating to the causes, effects, extent, prevention, and control of air pollution.

(b) Authorized activities of Administrator in establishing research and development program

In carrying out the provisions of the preceding subsection the Administrator 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 section 3324(a) and (b) of title 31 and section 6101 of title 41;
- (5) establish and maintain research fellowships, in the Environmental Protection Agen-

- cy and at public or nonprofit private educational institutions or research organizations:
- (6) 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:
- (7) develop effective and practical processes, methods, and prototype devices for the prevention or control of air pollution; and
- (8) construct facilities, provide equipment, and employ staff as necessary to carry out this chapter.

In carrying out the provisions of subsection (a) of this section, the Administrator shall provide training for, and make training grants to, personnel of air pollution control agencies and other persons with suitable qualifications and make grants to such agencies, to other public or nonprofit private agencies, institutions, and organizations for the purposes stated in subsection (a)(5) of this section. Reasonable fees may be charged for such training provided to persons other than personnel of air pollution control agencies but such training shall be provided to such personnel of air pollution control agencies without charge.

(c) Air pollutant monitoring, analysis, modeling, and inventory research

In carrying out subsection (a) of this section, the Administrator shall conduct a program of research, testing, and development of methods for sampling, measurement, monitoring, analysis, and modeling of air pollutants. Such program shall include the following elements:

- (1) Consideration of individual, as well as complex mixtures of, air pollutants and their chemical transformations in the atmosphere.
- (2) Establishment of a national network to monitor, collect, and compile data with quantification of certainty in the status and trends of air emissions, deposition, air quality, surface water quality, forest condition, and visibility impairment, and to ensure the comparability of air quality data collected in different States and obtained from different nations.
- (3) Development of improved methods and technologies for sampling, measurement, monitoring, analysis, and modeling to increase understanding of the sources of ozone percursors, ozone formation, ozone transport, regional influences on urban ozone, regional ozone trends, and interactions of ozone with other pollutants. Emphasis shall be placed on those techniques which—
 - (A) improve the ability to inventory emissions of volatile organic compounds and nitrogen oxides that contribute to urban air pollution, including anthropogenic and natural sources;
 - (B) improve the understanding of the mechanism through which anthropogenic

¹ So in original. Probably should be "precursors,".