be deleted from the registry as they become non-acidic."

ASSESSMENT OF INTERNATIONAL AIR POLLUTION CONTROL TECHNOLOGIES

Pub. L. 101–549, title IX, §901(e), Nov. 15, 1990, 104 Stat. 2706, directed Administrator of Environmental Protection Agency to conduct a study that compares international air pollution control technologies of selected industrialized countries to determine if there exist air pollution control technologies in countries outside the United States that may have beneficial applications to this Nation's air pollution control efforts, including, with respect to each country studied, the topics of urban air quality, motor vehicle emissions, toxic air emissions, and acid deposition, and within 2 years after Nov. 15, 1990, submit to Congress a report detailing the results of such study.

WESTERN STATES ACID DEPOSITION RESEARCH

Pub. L. 101-549, title IX, §901(g), Nov. 15, 1990, 104 Stat. 2707, provided that:

"(1) The Administrator of the Environmental Protection Agency shall sponsor monitoring and research and submit to Congress annual and periodic assessment reports on—

"(A) the occurrence and effects of acid deposition on surface waters located in that part of the United States west of the Mississippi River:

"(B) the occurrence and effects of acid deposition on high elevation ecosystems (including forests, and surface waters); and

"(C) the occurrence and effects of episodic acidification, particularly with respect to high elevation watersheds.

"(2) The Administrator of the Environmental Protection Agency shall analyze data generated from the studies conducted under paragraph (1), data from the Western Lakes Survey, and other appropriate research and utilize predictive modeling techniques that take into account the unique geographic, climatological, and atmospheric conditions which exist in the western United States to determine the potential occurrence and effects of acid deposition due to any projected increases in the emission of sulfur dioxide and nitrogen oxides in that part of the United States located west of the Mississippi River. The Administrator shall include the results of the project conducted under this paragraph in the reports issued to Congress under paragraph (1)."

Consultation With and Transmission of Reports and Studies to Congressional Committee

Pub. L. 95-95, title I, §101(c), Aug. 7, 1977, 91 Stat. 687, provided that: "The Administrator of the Environmental Protection Agency shall consult with the House Committee on Science and Technology [now Committee on Science, Space, and Technology] on the environmental and atmospheric research, development, and demonstration aspects of this Act [see Short Title of 1977 Amendment note set out under section 7401 of this title]. In addition, the reports and studies required by this Act that relate to research, development, and demonstration issues shall be transmitted to the Committee on Science and Technology [now Committee on Science, Space, and Technology] at the same time they are made available to other committees of the Congress."

STUDY OF SUBSTANCES DISCHARGED FROM EXHAUSTS OF MOTOR VEHICLES

Pub. L. 86-493, June 8, 1960, 74 Stat. 162, directed Surgeon General of Public Health Service to conduct a thorough study for purposes of determining, with respect to the various substances discharged from exhausts of motor vehicles, the amounts and kinds of such substances which, from the standpoint of human health, it is safe for motor vehicles to discharge into the atmosphere under the various conditions under

which such vehicles may operate, and, not later than two years after June 8, 1960, submit to Congress a report on results of the study, together with such recommendations, if any, based upon the findings made in such study, as he deemed necessary for the protection of the public health.

§ 7404. Research relating to fuels and vehicles

(a) Research programs; grants; contracts; pilot and demonstration plants; byproducts research

The Administrator shall give special emphasis to research and development into new and improved methods, having industry-wide application, for the prevention and control of air pollution resulting from the combustion of fuels. In furtherance of such research and development he shall—

- (1) conduct and accelerate research programs directed toward development of improved, cost-effective 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. 1
- (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; (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) carrying out the other provisions of this section, without regard to section 3324(a) and (b) of title 31 and section 6101 of title 41: 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, except that the determination, approval, and certification required thereby shall be made by the Administrator; 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;

¹ So in original. The period probably should be a semicolon.

(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 chapter; 2

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

(b) Powers of Administrator in establishing research and development programs

In carrying out the provisions of this section, the Administrator may-

- (1) conduct and accelerate research and development of cost-effective 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 labora-
- (3) establish and operate necessary facilities and test sites at which to carry on the research, testing, development, and programming 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 chapter will be served thereby.

(c) Clean alternative fuels

The Administrator shall conduct a research program to identify, characterize, and predict air emissions related to the production, distribution, storage, and use of clean alternative fuels to determine the risks and benefits to human health and the environment relative to those from using conventional gasoline and diesel fuels. The Administrator shall consult with other Federal agencies to ensure coordination and to avoid duplication of activities authorized under this subsection.

(July 14, 1955, ch. 360, title I, §104, as added Pub. L. 90-148, §2, Nov. 21, 1967, 81 Stat. 487; amended Pub. L. 91-137, Dec. 5, 1969, 83 Stat. 283; Pub. L. 91-604, §§ 2(b), (c), 13(a), 15(c)(2), Dec. 31, 1970, 84 Stat. 1676, 1677, 1709, 1713; Pub. L. 93–15, $\S1(a)$, Apr. 9, 1973, 87 Stat. 11; Pub. L. 93-319, §13(a), June 22, 1974, 88 Stat. 265; Pub. L. 101-549, title IX, §901(d), Nov. 15, 1990, 104 Stat. 2706.)

CODIFICATION

In subsec. (a)(2)(D), "section 3324(a) and (b) of title 31 and section 6101 of title 41" substituted for "sections 3648 and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5)" on authority of Pub. L. 97-258, §4(b), Sept. 13, 1982, 96 Stat. 1067, which Act enacted Title 31, Money and Finance, and Pub. L. 111-350, §6(c), Jan. 4, 2011, 124 Stat. 3854, which Act enacted Title 41, Public Con-

Section was formerly classified to section 1857b-1 of this title.

PRIOR PROVISIONS

A prior section 104 of act July 14, 1955, was renumbered section 105 by Pub. L. 90-148 and is classified to section 7405 of this title.

AMENDMENTS

1990—Subsecs. (a)(1), (b)(1). Pub. L. 101-549, §901(d)(1),

substituted "cost-effective" for "low-cost".
Subsec. (c). Pub. L. 101-549, §901(d)(2), amended subsec. (c) generally. Prior to amendment, subsec. (c) read as follows: "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, \$150,000,000 for the fiscal year ending June 30, 1973, and \$150,000,000 for the fiscal year ending June 30, 1974, and \$150,000,000 for the fiscal year ending June 30, 1975. Amounts appropriated pursuant to this subsection shall remain available until expended.

1974—Subsec. (c). Pub. L. 93-319 authorized appropriation of \$150,000,000 for fiscal year ending June 30, 1975. 1973—Subsec. (c). Pub. L. 93-15 authorized appropriation of \$150,000,000 for fiscal year ending June 30, 1974. 1970—Subsec. (a). Pub. L. 91–604, §15(c)(2), substituted "Administrator" for "Secretary"

Subsec. (a)(1). Pub. L. 91–604, §2(b), inserted provisions authorizing research programs directed toward development of techniques for improving the efficiency of fuels combustion so as to decrease atmospheric emissions, and producing synthetic or new fuels which result in decreased atmospheric emissions.

Subsec. (a)(2). Pub. L. 91-604, §2(c), added cls. (B) and (C) and redesignated former cl. (B) as (D).

Subsec. (b). Pub. L. 91–604, $\S15(c)(2)$, substituted "Administrator" for "Secretary"

Subsec. (c). Pub. L. 91-604, §13(a), substituted provisions authorizing appropriations for fiscal years ending June 30, 1971, 1972, and 1973, for provisions authorizing appropriations for fiscal years ending June 30, 1968 and

1969—Subsec. (c). Pub. L. 91-137 authorized appropriation of \$45,000,000 for fiscal year ending June 30, 1970.

HYDROGEN FUEL CELL VEHICLE STUDY AND TEST PROGRAM

Pub. L. 101-549, title VIII, §807, Nov. 15, 1990, 104 Stat. 2689, provided that: "The Administrator of the Environmental Protection Agency, in conjunction with the National Aeronautics and Space Administration and the Department of Energy, shall conduct a study and test program on the development of a hydrogen fuel cell electric vehicle. The study and test program shall determine how best to transfer existing NASA hydrogen fuel cell technology into the form of a mass-producible, cost effective hydrogen fuel cell vehicle. Such study and test program shall include at a minimum a feasibility-design study, the construction of a prototype, and a demonstration. This study and test program should be completed and a report submitted to Congress within 3 years after the enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990]. This study and test program should be performed in the university or universities which are best exhibiting the facilities and expertise to develop such a fuel cell vehicle.'

COMBUSTION OF CONTAMINATED USED OIL IN SHIPS

Pub. L. 101-549, title VIII, §813, Nov. 15, 1990, 104 Stat. 2693, provided that: "Within 2 years after the enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 19901, the Administrator of the Environmental Protection Agency shall complete a study and submit a report to Congress evaluating the health and environmental impacts of the combustion of contaminated used oil in ships, the reasons for using such oil for such purposes, the alternatives to such use, the costs of such alternatives, and other relevant factors and impacts. In preparing such study, the Administrator shall obtain the

 $^{^2\,\}mathrm{So}$ in original. The word "and" probably should appear.

view and comments of all interested persons and shall consult with the Secretary of Transportation and the Secretary of the department in which the Coast Guard is operating."

EXTENSION TO AUG. 31, 1970 OF AUTHORIZATION PERIOD FOR FISCAL YEAR 1970

Pub. L. 91–316, July 10, 1970, 84 Stat. 416, provided in part that the authorization contained in section 104(c) of the Clean Air Act [subsec. (c) of this section] for the fiscal year ending June 30, 1970, should remain available through Aug. 31, 1970, notwithstanding any provisions of this section.

§ 7405. Grants for support of air pollution planning and control programs

(a) Amounts; limitations; assurances of plan development capability

(1)(A) The Administrator may make grants to air pollution control agencies, within the meaning of paragraph (1), (2), (3), (4), or (5) of section 7602 of this title, in an amount up to three-fifths of the cost of implementing programs for the prevention and control of air pollution or implementation of national primary and secondary ambient air quality standards. For the purpose of this section, "implementing" means any activity related to the planning, developing, establishing, carrying-out, improving, or maintaining of such programs.

(B) Subject to subsections (b) and (c) of this section, an air pollution control agency which receives a grant under subparagraph (A) and which contributes less than the required two-fifths minimum shall have 3 years following November 15, 1990, in which to contribute such amount. If such an agency fails to meet and maintain this required level, the Administrator shall reduce the amount of the Federal contribution accordingly.

(C) With respect to any air quality control region or portion thereof for which there is an applicable implementation plan under section 7410 of this title, grants under subparagraph (A) may be made only to air pollution control agencies which have substantial responsibilities for carrying out such applicable implementation plan.

(2) Before approving any grant under this subsection to any air pollution control agency within the meaning of sections 7602(b)(2) and 7602(b)(4) of this title, the Administrator 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 7602(b)(2) and 7602(b)(4) of this title, the Administrator 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) Terms and conditions; regulations; factors for consideration; State expenditure limitations

(1) From the sums available for the purposes of subsection (a) of this section for any fiscal year, the Administrator shall from time to time make grants to air pollution control agencies upon such terms and conditions as the Administrator may find necessary to carry out the purpose of this section. In establishing regulations for the granting of such funds the Administrator shall, so far as practicable, give due consideration to (A) the population, (B) the extent of the actual or potential air pollution problem, and (C) the financial need of the respective agencies.

(2) Not more than 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 Administrator 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. Subject to the provisions of paragraph (1) of this subsection, no State shall have made available to it for application less than one-half of 1 per centum of the annual appropriation for grants under this section for grants to agencies within such State.

(c) Maintenance of effort

(1) No agency shall receive any grant under this section during any fiscal year when its expenditures of non-Federal funds for recurrent expenditures for air pollution control programs will be less than its expenditures were for such programs during the preceding fiscal year. In order for the Administrator to award grants under this section in a timely manner each fiscal year, the Administrator shall compare an agency's prospective expenditure level to that of its second preceding fiscal year. The Administrator shall revise the current regulations which define applicable nonrecurrent and recurrent expenditures, and in so doing, give due consideration to exempting an agency from the limitations of this paragraph and subsection (a) due to periodic increases experienced by that agency from time to time in its annual expenditures for purposes acceptable to the Administrator for that fiscal year.

(2) The Administrator may still award a grant to an agency not meeting the requirements of paragraph $(l)^1$ of this subsection if the Administrator, after notice and opportunity for public hearing, determines that a reduction in expenditures is attributable to a non-selective reduction in the expenditures in the programs of all Executive branch agencies of the applicable unit of Government. 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 Administrator is satisfied that such a grant will be so used to supplement and, to the extent practicable, increase the level of State, local, or other non-Federal funds. No grants shall be

¹So in original. Probably should be paragraph "(1)".