DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20201

OFFICE OF THE
GENERAL COUNSEL

December 24, 1974

TO: Holders of DHEW Institutional Patent Agreements

SUBJECT: Information Item No. 22

Attached is a copy of the Conference Report on the Energy Bill which has now passed the House and Senate. Section 9 covers patents. Special attention has been given to universities in Section 9(d)(11). Further, Section 9(d)(11) is discussed in the Joint Explanatory Statement. As you will note in the Explanatory Statement, Section 9 is a compromise, supported by the sponsors of the Senate provision, the Conference Committee, and the Executive Branch.

Sincerely yours,

Norman J. Latker
Patent Counsel

Enclosure

(S. 3394) to amend the Foreign Assistance Act of 1961, and for other purposes, and request a conference with the Senate thereon.

The SPEAKER. Is there objection to the request of the gentleman from Pennsylvania? The Chair hears none, and appoints the following conferees: Messrs. MORGAN, ZABLOCKI, HAYS, FASCELL, FRELINGHUYSEN, BROOMFIELD, and DERWINSKI.

GENERAL LEAVE

Mr. MORGAN. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks on the bill just passed and include extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

CONFERENCE REPORT ON S. 1283, FEDERAL ENERGY RESEARCH AND DEVELOPMENT PROGRAM

Mr. UDALL submitted the following conference report and statement on the bill (S. 1283) to establish a national program for research, development, and demonstration in fuels and energy and for the coordination and financial supplementation of Federal energy research and development; and for other purposes:

CONFERENCE REPORT (H. REPT. 93–1563)

The committee of conference on the disagreeing votes of the two Houses on the amendment of the House to the bill (S. 1283) to establish a national program for research, development, and demonstration in fuels and energy and for the coordination and financial supplementation of Federal energy research and development; 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 to the text of the bill 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:

SHORT TITLE

SEC. 1. This Act may be cited as the "Federal Nonnuclear Energy Research and Development Act of 1974".

STATEMENT OF FINDINGS

"SEC. 2. The Congress hereby finds that—

(a) The Nation is suffering from a shortage of environmentally acceptable forms of energy.

(b) Compounding this energy shortage is our past and present failure to formulate a comprehensive and aggressive research and development program designed to make available to American consumers our large domestic energy reserves including fossil fuels, nuclear fuels, geothermal resources, solar energy, and other forms of energy. This failure is partially because the unconvential energy technologies have not been judged to be economically competitive with traditional energy technologies.

(c) The urgency of the Nation's energy challenge will require commitments similar to those undertaken in the Manhattan and Apollo projects; it will require that the Nation undertake a research, development, and demonstration program in nonnuclear energy technologies with a total Federal investment which may reach or exceed $20,000,000,000 over the next decade.

(d) In undertaking such program, full advantage must be taken of the existing technical and managerial expertise in the various energy fields within Federal agencies and particularly in the private sector.

(e) The Nation's future energy needs can be met if a national commitment is made now to dedicate the necessary financial resources, to enlist our scientific and technological capabilities, and to accord the proper priority to developing new nonnuclear energy options to serve national needs, conserve vital resources, and protect the environment.

STATEMENT OF POLICY

SEC. 3. (a) It is the policy of the Congress to develop on an urgent basis the technological capabilities to support the broadest range of energy policy options through conservation and use of domestic resources by socially and environmentally acceptable means.

(b)(1) The Congress declares the purpose of this Act to be to establish and vigorously conduct a comprehensive, national program of basic and applied research and development, including but not limited to demonstrations of practical applications of all potentially beneficial energy sources and utilization technologies, within the Energy Research and Development Administration.

(2) In carrying out this program, the Administrator of the Energy Research and Development Administration (hereinafter in this Act referred to as the "Administrator") shall be governed by the terms of this Act and other applicable provisions of law with respect to all nonnuclear aspects of the research, development, and demonstration program; and the policies and provisions of the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) and other provisions of law shall continue to apply to the nuclear research, development, and demonstration program.

(3) In implementing and conducting the research, development, and demonstration programs pursuant to this Act, the Administrator shall incorporate programs in specific nonnuclear technologies previously enacted into law, including those established by the Solar Heating and Cooling Act of 1974 (Public Law 93–409), the Geothermal Energy Research, Development, and Demonstration Act of 1974 (Public Law 93–410), and the Solar Energy Research, Development, and Demonstration Act of 1974 (Public Law 93–473).

DUTIES AND AUTHORITIES OF THE ADMINISTRATOR

SEC. 4. The Administrator shall—

(a) review the current status of nonnuclear energy resources and current nonnuclear energy research and development activities, including research and development being conducted by Federal and non-Federal entities;

(b) formulate and carry out a comprehensive Federal nonnuclear energy research, development, and demonstration program which will expeditiously advance the policies established by this Act and other relevant legislation establishing programs in specific energy technologies;

(c), utilize the funds authorized pursuant to this Act to advance energy research and development by initiating and maintaining, through fund transfers, grants, or contracts, energy research, development and demonstration programs or activities utilizing the facilities, capabilities, expertise, and experience of Federal agencies, national laboratories, universities, nonprofit organizations, industrial entities, and other non-Federal entities which are appropriate to each type of research, development, and demonstration activity;

(d) establish procedures for periodic consultation with representatives of science, industry, environmental organizations, consumers and other groups who have special expertise in the areas of energy research development and technology; and

(e) initiate programs to design, construct, and operate energy facilities of sufficient size to demonstrate the technical and economic feasibility of utilizing various forms of nonnuclear energy.

GOVERNING PRINCIPLES

SEC. 5. (a) The Congress authorizes and directs that the comprehensive program in research, development, and demonstration required by this Act shall be designed and executed according to the following principles:

(1) Energy conservation shall be a primary consideration in the design and implementation of the Federal nonnuclear energy program. For the purposes of this Act, energy conservation means both improvement in efficiency of energy production and use, and reduction in energy waste.

(2) The environmental and social consequences of a proposed program shall be analyzed and considered in evaluating its potential.

(3) Any program for the development of a technology which may require significant consumptive use of water after the technology has reached the stage of commercial application shall include thorough consideration of the impacts of such technology and use on water resources pursuant to the provisions of section 13.

(4) Heavy emphasis shall be given to those technologies which utilize renewable or essentially inexhaustible energy sources.

(5) The potential for production of net energy by the proposed technology at the stage of commercial application shall be analyzed and considered in evaluating proposals.

(b) The Congress further directs that the execution of the comprehensive research, development, and demonstration program shall conform to the following principles:

(1) Research and development of nonnuclear energy sources shall be pursued in such a way as to facilitate the commercial availability of adequate supplies of energy to all regions of the United States.

(2) In determining the appropriateness of Federal involvement in any particular research and development undertaking, the Administrator shall give consideration to the extent to which the proposed undertaking satisfies criteria including, but not limited to, the following:

(A) The urgency of public need for the potential results of the research, development, or demonstration effort is high, and it is unlikely that similar results would be achieved in a timely manner in the absence of Federal assistance.

(B) The potential opportunities for non-Federal interests to recapture the investment in the undertaking through the normal commercial utilization of proprietary knowledge appear inadequate to encourage timely results.

(C) The extent of the problems treated and the objectives sought by the undertaking are national or widespread in their significance.

(D) There are limited opportunities to induce non-Federal support of the undertaking through regulatory actions, end use controls, tax and price incentives, public education, or other alternatives to direct Federal financial assistance.

(E) The degree of risk of loss of investment inherent in the research is high, and the availability or risk capital to the non-Federal entities which might otherwise engage in the field of the research is inadequate for the timely development of the technology.

(F) The magnitude of the investment appears to exceed the financial capabilities of potential non-Federal participants in the research to support effective efforts.

COMPREHENSIVE PLANNING AND PROGRAMING

SEC. 6. (a) Pursuant to the authority and directions of this Act and the Energy Reorganization Act of 1974 (Public Law 93-438), the Administrator shall transmit to the Congress, on or before June 30, 1975, a comprehensive plan for energy research, development, and demonstration. This plan shall be appropriately revised annually as provided in section 15(a). Such plan shall be designed to achieve—

(1) solutions to immediate and short-term (to the early 1980's) energy supply system and associated environmental problems;

(2) solutions to middle-term (the early 1980's to 2000) energy supply system and associated environmental problems; and

(3) solutions to long-term (beyond 2000) energy supply system and associated environmental problems.

(b) (1) Based on the comprehensive energy research, development, and demonstration plan developed under subsection (a), the Administrator shall develop and transmit to the Congress, on or before June 30, 1975, a comprehensive nonnuclear energy research, development, and demonstration program to implement the nonnuclear research, development, and demonstration aspects of the comprehensive plan.

(2) This program shall be designed to achieve solutions to the energy supply and associated environmental problems in the immediate and short-term (to the early 1980's), middle-term (the early 1980's to 2000), and long-term (beyond 2000) time intervals. In formulating the nonnuclear aspects of this program, the Administrator shall evaluate the economic, environmental, and technological merits of each aspect of the program.

(3) The Administrator shall assign program elements and activities in specific nonnuclear energy technologies to the short-term, middle-term, and long-term time intervals, and shall present full and complete justification for these assignments and the degree of emphasis for each. These program elements and activities shall include, but not be limited to, research, development, and demonstrations designed—

(A) to advance energy conservation technologies, including but not limited to—

(i) productive use of waste, including garbage, sewage, agricultural wastes, and industrial waste heat;

(ii) reuse and recycling of materials and consumer products;

(iii) improvements in automobile design for increased efficiency and lowered emissions, including investigation of the full range of alternatives to the internal combustion engine and systems of efficient public transportation; and

(iv) advanced urban and architectural design to promote efficient energy use in the residential and commercial sectors, improvements in home design and insulation technologies, small thermal storage units and increased efficiency in electrical appliances and lighting fixtures;

(B) to accelerate the commercial demonstration of technologies for producing low-sulfur fuels for boiler use;

(C) to demonstrate improved methods for the generation, storage, and transmission of electrical energy through (i) advances in gas turbine technologies, combined power cycles, the use of low British thermal unit gas and, if practicable, magnetohydrodynamics; (ii) storage systems to allow more efficient load following, including the use of inertial energy storage systems; and (iii) improvement in cryogenic transmission methods;

(D) to accelerate the commercial demonstration of technologies for producing substitutes for natural gas, including coal gasification: *Provided*, That the Administrator shall invite and consider proposals from potential participants based upon Federal assistance and participation in the form of a joint Federal-industry corporation, and recommendations pursuant to this clause shall be accompanied by a report on the viability of using this form of Federal assistance or participation;

(E) to accelerate the commercial demonstration of technologies for producing syncrude and liquid petroleum products from coal: *Provided*, That the Administrator shall invite and consider proposals from potential participants based upon Federal assistance and participation through guaranteed prices or purchase of the products, and recommendations pursuant to this clause shall be accompanied by a report on the viability of using this form of Federal assistance or participation;

(F) in accordance with the program authorized by the Geothermal Energy Research, Development, and Demonstration Act of 1974 (Public Law 93-410), to accelerate the commercial demonstration of geothermal energy technologies;

(G) to demonstrate the production of syncrude from oil shale by all promising technologies including in situ technologies;

(H) to demonstrate new and improved methods for the extraction of petroleum resources, including secondary and tertiary recovery of crude oil;

(I) to demonstrate the economics and commercial viability of solar energy for residential and commercial energy supply applications in accordance with the program authorized by the Solar Heating and Cooling Act of 1974 (Public Law 93-409);

(J) to accelerate the commercial demonstration of environmental control systems for energy technologies developed pursuant to this Act;

(K) to investigate the technical and economic feasibility of tidal power for supplying electrical energy;

(L) to commercially demonstrate advanced solar energy technologies in accordance with the Solar Research, Development and Demonstration Act of 1974 (Public Law 93-473);

(M) to determine the economics and commercial viability of the production of synthetic fuels such as hydrogen and methanol;

(N) to commercially demonstrate the use of fuel cells for central station electric power generation;

(O) to determine the economics and commercial viability of in situ coal gasification;

(P) to improve techniques for the management of existing energy systems by means of quality control; application of systems analysis, communications, and computer techniques; and public information with the objective of improving the reliability and efficiency of energy supplies and encourage the conservation of energy resources; and

(Q) to improve methods for the prevention and cleanup of marine oil spills.

FORMS OF FEDERAL ASSISTANCE

SEC. 7. (a) In carrying out the objectives of this Act, the Administrator may utilize various forms of Federal assistance and participation which may include but are not limited to—

(1) joint Federal-industry experimental, demonstration, or commercial corporations consistent with the provisions of subsection (b) of this section;

(2) contractual arrangements with non-Federal participants including corporations, consortia, universities, governmental entities, and nonprofit institutions;

(3) contracts for the construction and operation of federally owned facilities;

(4) Federal purchases or guaranteed price of the products of demonstration plants or activities consistent with the provisions of subsection (c) of the section;

(5) Federal loans to non-Federal entities conducting demonstrations of new technologies; and

(6) incentives including financial awards, to individual inventors, such incentives to be designed to encourage the participation of a large number of such inventors.

(b) Joint Federal-industry corporations proposed for congressional authorization pursuant to this Act shall be subject to the provisions of section 9 of this Act and shall conform to the following guidelines except as otherwise authorized by Congress:

(1) Each such corporation may design, construct, operate, and maintain one or more experimental, demonstration, or commercial-size facilities, or other operations which will ascertain the technical, environmental, and economic feasibility of a particular energy technology. In carrying out this function, the corporation shall be empowered, either directly or by contract, to utilize commercially available technologies, perform tests, or design, construct, and operate pilot plants, as may be necessary for the design of the full-scale facility.

(2) Each corporation shall have—

(A) a Board of nine directors consisting of individuals who are citizens of the United States, of whom one shall be elected annually by the Board to serve as Chairman. The Board shall be empowered to adopt and amend bylaws. Five members of the Board shall be appointed by the President of the United States, by and with the advice and consent of the Senate, and four members of the Board shall be appointed by the President on the basis of recommendations received by him from any non-Federal entity or entities entering into contractual arrangements to participate in the corporation;

(B) a President and such other officers and employees as may be named and appointed by the Board (with the rates of compensation of all officers and employees being fixed by the Board); and

(C) the usual powers conferred upon corporations by the laws of the District of Columbia.

(3) An appropriate time interval, not to exceed 12 years, shall be established for the term of Federal participation in the corporation, at the expiration of which the Board of Directors shall take such action as may be necessary to dissolve the corporation or otherwise terminate Federal participation and financial interests. In carrying out such dissolution, the Board of Directors shall dispose of all physical facilities of the corporation in such manner and subject to such terms and conditions as the Board determines are in the public interest and consistent with existing law; and a share of the appraised value of the corporate assets proportional to the Federal participation in the corporation, including the proceeds from the disposition of such facilities, on the date of its dissolution, after satisfaction of all its legal obligations, shall be made available to the United States and deposited in the Treasury of the United States as miscellaneous receipts. All patent rights of the corporation shall, on such date of dissolution, be vested in the Administrator: *Provided*, That Federal participation may be terminated prior to the time established in the authorizing Act upon recommendation of the Board of Directors.

(4) Any commercially valuable product produced by demonstration facilities shall be disposed of in such manner and under such terms and conditions as the corporation shall prescribe. All revenues received by the corporation from the sale of such products shall be available to the corporation for use by it in defraying expenses incurred in connection

with carrying out its functions to which this Act applies.

(5) The estimated Federal share of the construction, operation, and maintenance cost over the life of each corporation shall be determined in order to facilitate a single congressional authorization of the full amount at the time of establishment of the corporation.

(6) The Federal share of the cost of each such corporation shall reflect (A) the technical and economic risk of the venture, (B) the probability of any financial return to the non-Federal participants arising from the venture, (C) the financial capability of the potential non-Federal participants, and (D) such other factors as the Administrator may set forth in proposing the corporation: *Provided*, That in no instance shall the Federal share exceed 90 per centum of the cost.

(7) (A) Prior to the establishment of any joint Federal-industry corporation pursuant to this Act, the Administrator shall submit to the Speaker of the House of Representatives and the President pro tempore of the Senate, and to the appropriate committees of the House of Representatives and the Senate a report setting forth in detail the consistency of the establishment of the corporation with the principles and directives set forth in section 5 and this section, and the proposed purpose and planned activities of the corporation.

(B) No such corporation shall be established unless previously authorized by specific legislation enacted by the Congress.

(c) Competitive systems of price supports proposed for Congressional authorization pursuant to this Act shall conform to the following guidelines:

(1) The Administrator shall determine the types and capacities of the desired full-scale commercial-size facility or other operation which would demonstrate the technical, environmental, and economic feasibility of a particular nonnuclear energy technology.

(2) The Administrator may award planning grants for the purpose of financing a study of the full cycle economic and environmental costs associated with the demonstration facility selected pursuant to paragraph (1) of this subsection. Such planning grants may be awarded to Federal and non-Federal entities including, but not limited to, industrial entities, universities, and nonprofit organizations. Such planning grants may also be used by the grantee to prepare a detailed and comprehensive bid to construct the demonstration facility.

(3) Following the completion of the studies pursuant to the planning grants awarded under paragraph (2) of this subsection, regarding each such potential price supported demonstration facility for which the Administrator intends to request congressional authorization, he shall invite bids from all interested parties to determine the minimum amount of Federal price support needed to construct the demonstration facility. The Administrator may designate one or more competing entities, each to construct one commercial demonstration facility. Such designation shall be made on the basis of those entities (A) commitment to construct the demonstration facility at the minimum level of Federal price supports, (B) detailed plan of environmental protection, and (C) proposed design and operation of the demonstration facility.

(4) The construction plans and actual construction of the demonstration facility, together with all related facilities, shall be monitored by the Environmental Protection Agency. If additional environmental requirements are imposed by the Administrator after the designation of the successful bidders and if such additional environmental requirements result in additional costs, the Administrator is authorized to renegotiate the support price to cover such additional costs.

(5) The estimated amount of the Federal price support for a demonstration facility's product over the life of such facility shall be determined by the Administrator to facilitate a single congressional authorization of the full amount of such support at the time of the designation of the successful bidders.

(6) No price support program shall be implemented unless previously authorized by specific legislation enacted by the Congress.

(d) Nothing in this section shall preclude Federal participation in, and support for, joint university-industry nonnuclear energy research efforts.

DEMONSTRATIONS

SEC. 8. (a) The Administrator is authorized to—

(1) identify opportunities to accelerate the commercial applications of new energy technologies, and provide Federal assistance for or participation in demonstration projects (including pilot plants demonstrating technological advances and field demonstrations of new methods and procedures, and demonstrations of prototype commercial applications for the exploration, development, production, transportation, conversion, and utilization of energy resources); and

(2) enter into cooperative agreements with non-Federal entities to demonstrate the technical feasibility and economic potential of energy technologies on a prototype or full-scale basis.

(b) In reviewing potential projects, the Administrator shall consider criteria including but not limited to—

(1) the anticipated, research, development, and application objectives to be achieved by the activities or facilities proposed;

(2) the economic, environmental, and societal significance which a successful demonstration may have for the national fuels and energy system;

(3) the relationship of the proposal to the criteria of priority set forth in section 5(b)(2);

(4) the availability of non-Federal participants to construct and operate the facilities or perform the activities associated with the proposal and to contribute to the financing of the proposal;

(5) the total estimated cost including the Federal investment and the probable time schedule;

(6) the proposed participants and the proposed financial contributions of the Federal Government and of the non-Federal participants; and

(7) the proposed cooperative arrangement, agreements among the participants, and form of management of the activities.

(c) (1) A financial award under this section may be made only to the extent of the Federal share of the estimated total design and construction costs, plus operation and maintenance costs.

(2) For the purposes of this Act the non-Federal share may be in any form, including, but not limited to, lands or interests therein needed for the project or personal property or services, the value of which shall be determined by the Administrator.

(d) (1) The Administrator shall, within six months of enactment of this Act, promulgate regulations establishing procedures for submission of proposals to the Energy Research and Development Administration for the purposes of this Act. Such regulations shall establish a procedure for selection of proposals which—

(A) provides that projects will be carried out under such conditions and varying circumstances as will assist in solving energy extraction, transportation, conversion, conservation, and end-use problems of various areas and regions, under representative geological, geographic, and environmental conditions; and

(B) provides time schedules for submission of, and action on, proposal requests for the purposes of implementing the goals and objectives of this Act.

(2) Such regulations also shall specify the types and form of the information, data, and support documentation that are to be contained in proposals for each form of Federal assistance or participation set forth in subsection 7(a): *Provided*, That such proposals to the extent possible shall include, but not be limited to—

(A) specification of the technology;

(B) description of prior pilot plant operating experience with the technology;

(C) preliminary design of the demonstration plant;

(D) time tables containing proposed construction and operation plans;

(E) budget-type estimates of construction and operating costs;

(F) description and proof of title to land for proposed site, natural resources, electricity and water supply and logistical information related to access to raw materials to construct and operate the plant and to dispose of salable products produced from the plant;

(G) analysis of the environmental impact of the proposed plant and plans for disposal of wastes resulting from the operation of the plant;

(H) plans for commercial use of the technology if the demonstration is successful;

(I) plans for continued use of the plant if the demonstration is successful; and

(J) plans for dismantling of the plant if the demonstration is unsuccessful or otherwise abandoned.

(3) The Administrator shall from time to time review and, as appropriate, modify and repromulgate regulations issued pursuant to this section.

(e) If the estimate of the Federal investment with respect to construction costs of any demonstration project proposed to be established under this section exceeds $50,000,000, no amount may be appropriated for such project except as specifically authorized by legislation hereafter enacted by the Congress.

(f) If the total estimated amount of the Federal contribution to the construction cost of a demonstration project does not exceed $50,000,000, the Administrator is authorized to proceed with the negotiation of agreements and implementation of the proposal subject to the availability of funds under the authorization of appropriations pursuant to section 16: *Provided*, That if such Federal contribution to the construction cost is estimated to exceed $25,000,000 the Administrator shall provide a full and comprehensive report on the proposed demonstration project to the appropriate committees of the Congress and no funds may be expended for any agreement under the authority granted by this section prior to the expiration of sixty calendar days (not including any day on which either House of Congress is not in session because of an adjournment of more than three calendar days to a day certain) from the date on which the Administrator's report on the proposed project is received by the Congress. Such reports shall contain an analysis of the extent to which the proposed demonstration satisfies the criteria specified in subsection (b) of this section.

PATENT POLICY

SEC. 9. (a) Whenever any invention is made or conceived in the course of or under any contract of the Administration, other than nuclear energy research, development, and demonstration pursuant to the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) and the Administrator determines that—

(1) the person who made the invention was employed or assigned to perform research, development, or demonstration work and the invention is related to the work he was employed or assigned to perform, or that it was within the scope of his employment

duties, whether or not it was made during working hours, or with a contribution by the Government of the use of Government facilities, equipment, materials, allocated funds, information proprietary to the Government, or services of Government employees during working hours; or

(2) the person who made the invention was not employed or assigned to perform research, development, or demonstration work, but the invention is nevertheless related to the contract or to the work or duties he was employed or assigned to perform, and was made during working hours, or with a contribution from the Government of the sort referred to in clause (1),

title to such invention shall vest in the United States, and if patents on such invention are issued they shall be issued to the United States, unless in particular circumstances the Administrator waives all or any part of the rights of the United States to such invention in conformity with the provisions of this section.

(b) Each contract entered into by the Administration with any person shall contain effective provisions under which such person shall furnish promptly to the Administration a written report containing full and complete technical information concerning any invention, discovery, improvement, or innovation which may be made in the course of or under such contract.

(c) Under such regulations in conformity with the provisions of this section as the Administrator shall prescribe, the Administrator may waive all or any part of the rights of the United States under this section with respect to any invention or class of inventions made or which may be made by any person or class of persons in the course of or under any contract of the Administration if he determines that the interests of the United States and the general public will best be served by such waiver. The Administration shall maintain a publicly available, periodically updated record of waiver determinations. In making such determinations, the Administrator shall have the following objectives:

(1) Making the benefits of the energy research, development, and demonstration program widely available to the public in the shortest practicable time.

(2) Promoting the commercial utilization of such inventions.

(3) Encouraging participation by private persons in the Administration's energy research, development, and demonstration program.

(4) Fostering competition and preventing undue market concentration or the creation or maintenance of other situations inconsistent with the antitrust laws.

(d) In determining whether a waiver to the contractor at the time of contracting will best serve the interests of the United States and the general public, the Administrator shall specifically include as considerations—

(1) the extent to which the participation of the contractor will expedite the attainment of the purposes of the program;

(2) the extent to which a waiver of all or any part of such rights in any or all fields of technology is needed to secure the participation of the particular contractor;

(3) the extent to which the contractor's commercial position may expedite utilization of the research, development, and demonstration program results;

(4) the extent to which the Government has contributed to the field of technology to be funded under the contract;

(5) the purpose and nature of the contract, including the intended use of the results developed thereunder;

(6) the extent to which the contractor has made or will make substantial investment of financial resources or technology developed at the contractor's private expense which will directly benefit the work to be performed under the contract;

(7) the extent to which the field of technology to be funded under the contract has been developed at the contractor's private expense;

(8) the extent to which the Government intends to further develop to the point of commercial utilization the results of the contract effort;

(9) the extent to which the contract objectives are concerned with the public health, public safety, or public welfare;

(10) the likely effect of the waiver on competition and market concentration; and

(11) in the case of a nonprofit educational institution, the extent to which such institution has a technology transfer capability and program, approved by the Administrator as being consistent with the applicable policies of this section.

(e) In determining whether a waiver to the contractor or inventor of rights to an identified invention will best serve the interests of the United States and the general public, the Administrator shall specifically include as considerations paragraphs (4) through (11) of subsection (d) as applied to the invention, and—

(1) the extent to which such waiver is a reasonable and necessary incentive to call forth private risk capital for the development and commercialization of the invention; and

(2) the extent to which the plans, intentions, and ability of the contractor or inventor will obtain expeditious commercialization of such invention.

(f) Whenever title to an invention is vested in the United States, there may be reserved to the contractor or inventor—

(1) a revocable or irrevocable nonexclusive, paid-up license for the practice of the invention throughout the world; and

(2) the rights to such invention in any foreign country where the United States has elected not to secure patent rights and the contractor elects to do so, subject to the rights set forth in paragraphs (2), (3), (6), and (7) of subsection (h): *Provided*, That when specifically requested by the Administration and three years after issuance of such a patent, the contractor shall submit the report specified in subsection (h)(1) of this section.

(g)(1) Subject to paragraph (2) of this subsection, the Administrator shall determine and promulgate regulations specifying the terms and conditions upon which licenses may be granted in any invention to which title is vested in the United States.

(2) Pursuant to paragraph (1) of this subsection, the Administrator may grant exclusive or partially exclusive licenses in any invention only if, after notice and opportunity for hearing, it is determined that—

(A) the interests of the United States and the general public will best be served by the proposed license, in view of the applicant's intentions, plans, and ability to bring the invention to the point of practical or commercial applications;

(B) the desired practical or commercial applications have not been achieved, or are not likely expeditiously to be achieved, under any nonexclusive license which has been granted, or which may be granted, on the invention;

(C) exclusive or partially exclusive licensing is a reasonable and necessary incentive to call forth risk capital and expenses to bring the invention to the point of practical or commercial applications; and

(D) the proposed terms and scope of exclusivity are not substantially greater than necessary to provide the incentive for bringing the invention to the point of practical or commercial applications and to permit the licensee to recoup its costs and a reasonable profit thereon:

Provided, That the Administrator shall not grant such exclusive or partially exclusive license if he determines that the grant of such license will tend substantially to lessen competition or result in undue concentration in any section of the country in any line of commerce to which the technology to be licensed relates. The Administration shall maintain a publicly available, periodically updated record of determinations to grant such licenses.

(h) Each waiver of rights or grant of an exclusive or partially exclusive license shall contain such terms and conditions as the Administrator may determine to be appropriate for the protection of the interests of the United States and the general public, including provisions for the following:

(1) Periodic written reports at reasonable intervals, and when specifically requested by the Administration, on the commercial use that is being made or is intended to be made of the invention.

(2) At least an irrevocable, nonexclusive, paid-up license to make, use, and sell the invention throughout the world by or on behalf of the United States (including any Government agency) and States and domestic municipal governments, unless the Administrator determines that it would not be in the public interest to acquire the license for the States and domestic municipal governments.

(3) The right in the United States to sublicense any foreign government pursuant to any existing or future treaty or agreement if the Administrator determines it would be in the national interest to acquire this right.

(4) The reservation in the United States of the rights to the invention in any country in which the contractor does not file an application for patent within such time as the Administration shall determine.

(5) The right in the Administrator to require the granting of a nonexclusive, exclusive, or partially exclusive license to a responsible applicant or applicants, upon terms reasonable under the circumstances, (A) to the extent that the invention is required for public use by governmental regulations, or (B) as may be necessary to fulfill health, safety, or energy needs, or (C) for such other purposes as may be stipulated in the applicable agreement.

(6) The right in the Administrator to terminate such waiver or license in whole or in part unless the recipient of the waiver or license demonstrates to the satisfaction of the Administrator that he has taken effective steps, or within a reasonable time thereafter is expected to take such steps, necessary to accomplish substantial utilization of the invention.

(7) The right in the Administrator, commencing three years after the grant of a license and four years after a waiver is effective as to an invention, to require the granting of a nonexclusive or partially exclusive license to a responsible applicant or applicants, upon terms reasonable under the circumstances, and in appropriate circumstances to terminate the waiver or license in whole or in part, following a hearing upon notice thereof to the public, upon a petition by an interested person justifying such hearing—

(A) if the Administrator determines, upon review of such material as he deems relevant, and after the recipient of the waiver or license, or other interested person, has had the opportunity to provide such relevant and material information as the Administrator may require, that such waiver or license has tended substantially to lessen competition or to result in undue concentration in any section of the country in any line of commerce to which the technology relates; or

(B) unless the recipient of the waiver or license demonstrates to the satisfaction of

the Administrator at such hearing that he has taken effective steps, or within a reasonable time thereafter is expected to take such steps, necessary to accomplish substantial utilization of the invention.

(i) The Administrator shall provide an annual periodic notice to the public in the Federal Register, or other appropriate publication, of the right to have a hearing as provided by subsection (h)(7) of this section, and of the availability of the records of determinations provided in this section.

(j) The Administrator shall, in granting waivers or licenses, consider the small business status of the applicant.

(k) The Administrator is authorized to take all suitable and necessary steps to protect any invention or discovery to which the United States holds title, and to require that contractors or persons who acquire rights to inventions under this section protect such inventions.

(l) The Administration shall be considered a defense agency of the United States for the purpose of chapter 17 of title 35 of the United States Code.

(m) As used in this section—

(1) the term "person" means any individual partnership, corporation, association, institution, or other entity;

(2) the term "contract" means any contract, grant, agreement, understanding, or other arrangement, which includes research, development, or demonstration work, and includes any assignment, substitution of parties, or subcontract executed or entered into thereunder;

(3) the term "made", when used in relation to any invention, means the conception or first actual reduction to practice of such invention;

(4) the term "invention" means inventions or discoveries, whether patented or unpatented; and

(5) the term "contractor" means any person having a contract with or on behalf of the Administration.

(n) Within twelve months after the date of the enactment of this Act, the Administrator with the participation of the Attorney General, the Secretary of Commerce, and other officials as the President may designate, shall submit to the President and the appropriate congressional committees a report concerning the applicability of existing patent policies affecting the programs under this Act, along with his recommendations for amendments or additions to the statutory patent policy including his recommendations on mandatory licensing, which he deems advisable for carrying out the purposes of this Act.

RELATIONSHIP TO ANTITRUST LAWS

SEC. 10. (a) Nothing in this Act shall be deemed to convey to any individual, corporation, or other business organization immunity from civil or criminal liability, or to create defenses to actions, under the antitrust laws.

(b) As used in this section, the term "antitrust law" means—

(1) the Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies", approved July 2, 1890 (15 U.S.C. 1 et seq.), as amended:

(2) the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes", approved October 15, 1914 (15 U.S.C. 12 et seq.) as amended;

(3) the Federal Trade Commission Act (15 U.S.C. 41 et seq.), as amended;

(4) sections 73 and 74 of the Act entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes", approved August 27, 1894 (15 U.S.C. 8 and 9), as amended; and

(5) the Act of June 19, 1936, chapter 592 (15 U.S.C. 13, 13a, 13b, and 21a).

ENVIRONMENTAL EVALUATION

SEC. 11. (a) The Council on Environmental Quality is authorized and directed to carry out a continuing analysis of the effect of application of nonnuclear energy technologies to evaluate—

(1) the adequacy of attention to energy conservation methods; and

(2) the adequacy of attention to environmental protection and the environmental consequences of the application of energy technologies.

(b) The Council on Environmental Quality, in carrying out the provisions of this section, may employ consultants or contractors and may by fund transfer employ the services of other Federal agencies for the conduct of studies and investigations.

(c) The Council on Environmental Quality shall hold annual public hearings on the conduct of energy research and development and the probable environmental consequences of trends in the development and application of energy technologies. The transcript of the hearings shall be published and made available to the public.

(d) The Council on Environmental Quality shall make such reports to the President, the Administrator, and the Congress as it deems appropriate concerning the conduct of energy research and development. The President as a part of the annual Environmental Policy Report required by section 201 of the National Environmental Policy Act of 1969 (42 U.S.C. 4341) shall set forth the findings of the Council on Environmental Quality concerning the probable environmental consequences of trends in the development and application of energy technologies.

ACQUISITION OF ESSENTIAL MATERIALS

SEC. 12. (a) The President may, by rule or order, require the allocation of, or the performance under contracts or orders (other than contracts of employment) relating to, supplies of materials and equipment if he finds that—

(1) such supplies are scarce, critical, and essential to carry out the purposes of this Act; and

(2) such supplies cannot reasonably be obtained without exercising the authority granted by this section.

(b) The President shall transmit any rule or order proposed under subsection (a) of this section (bearing an identification number) to each House of Congress on the date on which it is proposed. If such proposed rule or order is transmitted to the Congress such proposed rule or order shall take effect at the end of the first period of thirty calendar days of continuous session of Congress after the date on which such proposed rule or order is transmitted to it unless, between the date of transmittal and the end of the thirty day period, either House passes a resolution stating in substance that such House does not favor such a proposed rule or order.

WATER RESOURCE EVALUATION

SEC. 13. (a) At the request of the Administrator, the Water Resources Council shall undertake assessments of water resource requirements and water supply availability for any nonnuclear energy technology and any probable combinations of technologies which are the subject of Federal research and development efforts authorized by this Act, and the commercial development of which could have significant impacts on water resources. In the preparation of its assessment, the Council shall—

(1) utilize to the maximum extent practicable data on water supply and demand available in the files of member agencies of the Council;

(2) collect and compile any additional data it deems necessary for complete and accurate assessments;

(3) give full consideration to the constraints upon availability imposed by treaty, compact, court decree, State water laws, and water rights granted pursuant to State and Federal law;

(4) assess the effects of development of such technology on water quality;

(5) include estimates of cost associated with production and management of the required water supply, and the cost of disposal of waste water generated by the proposed facility or process;

(6) assess the environmental, social, and economic impact of any change in use of currently utilized water resource that may be required by the proposed facility or process; and

(7) consult with the Council on Environmental Quality.

(b) For any proposed demonstration project which may involve a significant impact on water resources, the Administrator shall, as a precondition of Federal assistance to that project, prepare or have prepared an assessment of the availability of adequate water resources. A report on the assessment shall be published in the Federal Register for public review thirty days prior to the expenditure of Federal funds on the demonstration.

(c) For any proposed Federal assistance for commercial application of energy technologies pursuant to this Act, the Water Resource Council shall as a precondition of such Federal assistance, provide to the Administrator an assessment of the availability of adequate water resources for such commercial application and an evaluation of the environmental, social, and economic impacts of the dedication of water to such uses.

(d) Reports of assessments and evaluations prepared by the Council pursuant to subsections (a) and (c) shall be published in the Federal Register and at least ninety days shall be provided for public review and comment. Comments received shall accompany the reports when they are submitted to the Administrator and shall be available to the public.

(e) The Council shall include a broad survey and analysis of regional and national water resource availability for energy development in the biennial assessment required by section 102(a) of the Water Resources Planning Act (42 U.S.C. 1962a–1(a)).

ENERGY-RELATED INVENTIONS

SEC. 14. The National Bureau of Standards shall give particular attention to the evaluation of all promising energy-related inventions, particularly those submitted by individual inventors and small companies for the purpose of obtaining direct grants from the Administrator. The National Bureau of Standards is authorized to promulgate regulations in the furtherance of this section.

REPORTS TO CONGRESS

SEC. 15. (a) Concurrent with the submission of the President's annual budget to the Congress, the Administrator shall submit to the Congress each year—

(1) a report detailing the activities carried out pursuant to this Act during the preceding fiscal year;

(2) a detailed description of the comprehensive plan for nuclear and nonnuclear energy research, development, and demonstration then in effect under section 6(a); and

(3) a detailed description of the comprehensive nonnuclear research, development, and demonstration program then in effect under section 6(b) including its program elements and activities,

setting forth such modifications in the comprehensive plan referred to in clause (2) and the comprehensive program referred to in clause (3) as may be necessary to revise appropriately such plan and program in the light of the activities referred to in clause (1) and any changes in circumstances which may have occurred since the last previous report under this subsection.

(b) The description of the comprehensive nonnuclear research, development, and demonstration program submitted under subsection (a)(2) shall include a statement setting forth—

(1) the anticipated research, development, and application objectives to be achieved by the proposed program;

(2) the economic, environmental, and societal significance which the proposed program may have;

(3) the total estimated cost of individual program items;

(4) the estimated relative financial contributions of the Federal Government and non-Federal participants in the research and development program;

(5) the relationship of the proposed program to any Federal national energy or fuel policies; and

(6) the relationship of any short-term undertakings and expenditures to long-range goals.

(c) The reports required by subsections (a) and (b) of this section will satisfy the reporting requirements of section 307(a) of the Energy Reorganization Act of 1974 (Public Law 93-438) insofar as is concerned activities, goals, priorities, and plans of the Energy Research and Development Administration pertaining to nonnuclear energy.

APPROPRIATION AUTHORIZATION

SEC. 16. (a) There may be appropriated to the Administrator to carry out the purposes of this Act such sums as may be authorized in annual authorization Acts.

(b) Of the amounts appropriated pursuant to subsection (a) of this section—

(1) $500,000 annually shall be made available by fund transfer to the Council on Environmental Quality for the purposes authorized by section 11; and

(2) not to exceed $1,000,000 annually shall be made available by fund transfer to the Water Resources Council for the purposes authorized by section 13.

(c) There also may be appropriated to the Administrator by separate Acts such amounts as are required for demonstration projects for which the total Federal contribution to construction costs exceeds $50,000,000.

And the House agree to the same.

That the Senate recede from its disagreement to the amendment of the House to the title of the bill and agree to the same.

MORRIS K. UDALL,
JONATHAN B. BINGHAM,
JOHN F. SEIBERLING,
OLIN TEAGUE,
MIKE MCCORMACK,
PHILIP E. RUPPE,
JOHN DELLENBACK,
CHARLES A. MOSHER,
Managers on the Part of the House.

HENRY M. JACKSON,
LEE METCALF,
J. BENNETT JOHNSTON, Jr.,
FLOYD K. HASKELL,
GAYLORD NELSON,
MARK O. HATFIELD,
JAMES L. BUCKLEY,
JAMES A. MCCLURE,
Managers on the Part of the Senate.

JOINT EXPLANATORY STATEMENT OF THE COMMITTEE OF CONFERENCE

The managers, on the part of the Senate and the House at the conference on the disagreeing votes of the two Houses on the amendment of the House to the bill (S. 1283) to establish within the Energy Research and Development Administration a comprehensive nonnuclear energy research, development, and demonstration program to create the broadest range of future energy policy options for the United States, submit the following joint statement to the Senate and to the House in explanation of the effect of the action agreed upon by the managers and recommended in the accompanying conference report.

The House amendment to the text of the bill struck out all of the Senate bill after the enacting clause and inserted a substitute text.

The Senate recedes from its disagreement to the amendment of the House with an amendment which is a substitute for the Senate bill and the House amendment. The differences between the Senate bill, the House amendment, and the substitute agreed to in conference are noted below, except for clerical corrections, conforming changes made necessary by agreements reached by the conferees, and minor drafting and clarifying changes.

SHORT TITLE

The short title, "Federal Nonnuclear Energy Research and Development Act of 1974", follows the House amendment (section 1), because the Senate bill was passed in 1973 before the establishment of the Energy Research and Development Administration.

FINDINGS

The findings of the conference substitute are a compilation of key findings in the Senate bill and the House amendment. Subsections 2 (a), (d), and (e) are House amendments (subsections 1 (a), (g), and (d)). The Senate provision (subsection 101(b)) has been modified to more explicitly state the economic barrier to the development of new energy technologies and has been included as subsection 2(b). Subsection 2(c) is derived from subsection 101(e) of the Senate bill and subsection 1(f) of the House amendment. This finding retains the intent of the Senate language which stated a general target for Federal investment to provide budgetary guidance in establishing a nonnuclear research and development program. The agreed upon language, however, expresses the sense of the conferees that the figure is only approximate.

POLICY

Subsection 3(a) incorporates the introductory language of section 102 of the Senate bill with changes to reflect more recent views on energy policy. The Senate version of the measure included a statement of the policy of the Congress "to develop within ten years the option and the technological capability for the United States to become energy self-sufficient through the use of domestic energy resources by socially and environmentally acceptable means." The House version contained no comparable provision. The conference committee wished to retain the sense of urgency expressed in the Senate version without prejudging the time span of the required accelerated research, development, and demonstration effort. The committee also wished to emphasize that the objective of this effort is to open up the broadest range of energy options for use in the formulation of future energy policy choices.

The House amendment (subsection 2(b)) is included as subsection 3(b) with only conforming and technical changes.

DUTIES AND AUTHORITIES OF THE ADMINISTRATOR

House amendment (subsection 4(a)) is included without change as subsection 4(a). Subsection 4(b) incorporates the introductory language of subsection 104(b) of the Senate bill and refers to other energy technology programs established by legislation, and makes clear that those programs in specific nonnuclear technologies are to be implemented by the Administrator. The provisions of subsections 104(c)(2) and 104(d) from the Senate bill are included as subsections 4(c) and 4(d) with only conforming and technical changes. Subsection 4(e) gives to the Administrator the authority to initiate demonstration programs and is based on subsection 106(a) of the Senate bill.

GOVERNING PRINCIPLES

Section 5 follows section 3 of the House amendment, which enunciates a set of governing principles. The enumeration is not intended to include all of the principles which might be applicable, but only to emphasize certain principles which are presently deemed to be of fundamental importance to a sound program. The intent is to insure that the five principles which are set forth in subsection 5(a) are observed in the design and execution of Federal nonnuclear energy research programs.

The principle set forth in paragraph 5(a)(4) states the importance of emphasizing research, development, and commercial demonstration of technologies which utilize renewable or essentially inexhaustible energy sources as distinguished from nonrenewable energy resources, because the most desirable sources of conventional fossil fuels are in limited supply. As continued demands are placed upon them, further development often will entail greater costs and more serious adverse environmental and social impacts. Ultimately some fossil fuels will be substantially exhausted. Therefore, it is important for research to be immediately directed toward developing technologies for the economic and reliable use of non-conventional as well as renewable energy sources such as solar or solar generated energy forms and essentially inexhaustible energy sources such as deep, dry geothermal energy.

The intent of the principle stated in paragraph 5(a)(5) is that in the assignment of priorities for Federal encouragement of commercial applications of new energy technologies, consideration should be given to the net as opposed to the gross, energy yield. The processes and facilities necessary to produce energy also consume energy, and in the case of certain technologies, this consumption may account for a substantial portion of the potential yield of the energy resource. Efficiency in every step of energy production, transmission, and utilization is important.

The conferees recognize that in the early research or development phases of new technologies, the projected applications may even involve a net loss of energy. This principle is not intended in any way to deter such research or to deter the demonstration of new technologies which are not energy efficient or cost effective in the early stages of development.

The principle in paragraph 5(b)(1) is derived from paragraph 2(b)(6) of the House amendment. The criteria set forth in paragraph 5(b)(2) are those enumerated in section 112 of the Senate bill with changes in the introductory language to express the view of the conference committee that criteria for evaluating proposals are not limited to those in the subsection. For proposals for which two or more criteria are in conflict, the Administrator is expected to base his judgments on an evaluation of criteria in the aggregate.

COMPREHENSIVE PLANNING AND PROGRAMING

This section is related to section 107 of the Senate bill and subsections 4 (b), (d), and (e) of the House amendment. The Senate provision required three reports from the Administrator to Congress within six, twelve, and eighteen months. The three reports were intended to recommend specific programs to solve energy supply and associated environmental problems for the immediate and short-term (to the early 1980's), for the middle-term (the early 1980's to 2000), and for the long-term (beyond 2000), through the use of Federal assistance to accelerate the commercial demonstration of those energy technologies given in three corresponding lists.

The House amendment provisions required the formulation and reporting to Congress

of a comprehensive nonnuclear strategy designed to advance the policies set forth in this Act. An extensive list of nonnuclear energy technologies was to be considered by the Administrator in allocating Federal moneys with emphasis to be placed on energy conservation, solar and geothermal technologies as well as advanced technologies in coal, oil, natural gas, and oil shale resources.

The conference committee substitute requires the Administrator to submit to Congress by June 30, 1975 a comprehensive plan for energy research, development and demonstration to achieve solutions to energy supply system and associated environmental problems in the three time intervals delineated in the Senate bill. Based on this plan, the Administrator is required to formulate a comprehensive nonnuclear energy research, development, and demonstration program. The Administrator is directed to justify the assignment of a program activity pertaining to each technology to a specific time interval, and to substantiate the degree of emphasis accorded to each technology within the comprehensive program.

An extensive list of energy technologies is set forth in subsection 6(b) for inclusion in the comprehensive program. This list is comprised of those technologies given in section 107 of the Senate bill and subsections 4(d) and (e) of the House amendment. Each of the listed technologies is to be thoroughly considered in the comprehensive program. It is intended that each technology will be carried through to commercial application only if preceding research and development results warrant. The energy conservation technologies were explicitly included to emphasize the sentiment of the conference committee for promoting strong Federal research, development, and demonstration programs, particularly those enumerated in this bill, to promote energy conservation technologies.

With regard to subparagraphs 6(b)(3)(A)(i) and (ii), the conference committee recognizes that this legislation is not the first to provide for research and development of technologies which will convert agricultural, municipal, and commercial waste into a useful source of energy or materials. The experiences of other Federal agencies in this area have convincingly demonstrated that the development and demonstration of technologies for the recovery of energy from waste do not guarantee the adoption of such technologies by the public or private sector.

Research, development, and demonstrations of technologies for the conversion of waste to energy or reuseable materials should be initiated by the Administrator only after consultation and coordination with the appropriate agencies having existing programs and statutory authorities with similar objectives. The conferees intend that ERDA projects for the development of technologies designed to convert waste and recover resources shall be planned and executed so as to augment and supplement the efforts by such other agencies in promising technologies which the Administrator determines are not otherwise being adequately investigated and developed.

Paragraphs 6(b)(4) and 6(b)(5) explicitly require the Administrator to invite and consider proposals and report his recommendations pertaining to the advisability of Federal assistance in the form of a joint Federal-industry corporation for producing natural gas substitutes and in the form of guaranteed prices for producing syncrude and liquid petroleum products from coal.

Paragraph 6(b)(16) is a modified version of section 104(b)(3) of the Senate bill. It is the intent of the provision to make clear that the Administrator of ERDA has the authority and responsibility to carry out research and development in scientific management methods which have applications to energy industries or energy technologies.

FORMS OF FEDERAL ASSISTANCE

Nearly all of the provisions in section 7 were included in the Senate bill (subsection 108(a), section 109, and section 110). The House amendment (section 5) added provisions for incentives to inventors (paragraph 5(a)(1)(F)); for reports by the Administrator to the Congress and subsequent Congressional authorization of joint Federal-industry corporations (paragraph 5(b)(7)(A) and (B)) and for allowance of joint-university-industry nonnuclear energy research efforts (subsection 5(d)).

The House amendment was adopted by the conference committee with two additional modifications. A provision (paragraph 7(c)(6)) was added requiring Congressional authorization for any price support program thus making unnecessary the establishment of a price support fund in this measure. Also, the provision in subsection 7(b) was modified by the conference committee to make clear the intention that any joint Federal-industry corporations which may be proposed for Congressional authorization would be subject to the patent policy set forth in section 9 of the compromise version.

DEMONSTRATIONS

The Senate bill contained provisions pertaining to demonstration projects in section 106; subsections 108 (b), (c), and (d); and section 111. No comparable provisions were included in the House amendment. The conference substitute adopts the Senate language with several modifications.

Subsection 8(a) is derived from section 106 of the Senate bill with a more concise and straightforward statement of the Administrator's authority. The criteria of subsection 8(b) are taken from subsection 111(a) of the Senate bill. A change in the introductory language was made to require consideration of the criteria for all demonstration proposals.

The requirement for a report analyzing the extent to which proposed demonstrations met the stated criteria was moved to subsection 8(f). The language in subsections 8(c) and (d) is taken directly from subsections 108 (b), (c), and (d) of the Senate bill. The provisions of subsection 8(c) are intended to apply only to cost-shared demonstrations. It is not intended to require single contracts to cover design, construction, operation, and maintenance of demonstration projects. The basic intent of this subsection is to prohibit payment of fees to the private cost sharers in demonstration projects. Subsection 8(c) is not intended to prohibit the Administrator from contracting on a fee basis for systems analysis or systems management support needed to assist in monitoring and protecting the Federal interests in projects pursued under this section. The subsection is also not intended to affect contracts in force prior to enactment of this Act or to inhibit cooperative efforts with universities or other nonprofit research organizations.

The language of subsection 8(e) is a restatement of the provision stated in subsection 111(c). Subsection 8(f) is essentially subsection 111(b) of the Senate bill with a new reporting requirement and an increase from $10,000,000 to $25,000,000 for the Federal contribution to the construction cost of a demonstration project before the Administrator must report to the Congress on a proposed project. The increase in this figure is a conference committee compromise.

PATENT POLICY

Section 9 represents a compromise between section 113 of the Senate bill which totally prohibited waiver of title and the granting of exclusive licenses with respect to government-sponsored technology and section 7 of the House bill which contained a study provision. The section is supported by the sponsors of the Senate provision, the conference committee, and the Executive Branch.

The provisions are designed to meet the stated concerns underlying the absolute prohibition against waiver of title and exclusive licensing in the Senate bill, while satisfying the need for flexibility reflected in the House approach. Section 9 is intended to apply to all nonnuclear contracts of the Energy Research and Development Administration. Nuclear energy research, development, or demonstration contracts shall continue to be governed by the provisions of the Atomic Energy Act of 1954, as amended. Inclusion of substantive patent policy provisions represents the conclusion of the conference committee that it is necessary and appropriate for the Congress to delineate the basic and minimum considerations and conditions under which ERDA will carry out its patent policy with respect to Government-sponsored technology in an area critical to the welfare of the nation. The conference committee expects the Administrator to administer ERDA's patent responsibilities in a consistent and uniform manner and to harmonize its nuclear and nonnuclear patent policies to the extent feasible.

Section 9 adopts the basic structure of the patent policy of the National Aeronautics and Space Act, with some modifications derived from the Atomic Energy Act. The provisions provide for the Federal Government normally to retain title to inventions developed under ERDA contracts, and for the licensing of ERDA inventions normally to be granted on a nonexclusive basis. Authority to grant waivers and exclusive or partially exclusive licenses is vested in the Administrator to assure flexibility; but only in conformity with specific minimum considerations which have been adopted primarily from the NASA and AEC regulations, and the Presidential Patent Policy Statement. This flexibility permits—but does not require—the Administrator, under carefully delineated conditions, to grant exclusive rights to contractors or inventors in objectively appropriate circumstances. Government patent policy carried out under the NASA and AEC Acts and regulations, and the Presidential Patent Policy Statement with respect to energy technology, has resulted in relatively few waivers or exclusive licenses in comparison with the number of inventions involved. The conference committee expects that similar results will obtain under section 9.

Subsection (a) provides that title to inventions resulting from ERDA research, development, or demonstration contracts vest in the United States unless the Administrator waives rights thereto pursuant to other provisions of this section.

To assist the Administrator in expeditiously making available to the public the results of the program and in determining whether to waive any part of the rights in the United States, subsection (b) requires each contract entered into by the Administrator to provide for a prompt, complete report detailing inventions resulting therefrom.

Subsection (c) provides that before granting a waiver, the Administrator must determine that the interests of the United States and the general public will best be served thereby. In making such determination, he is to have as objectives making the benefits of ERDA's program widely available to the public, the promotion of the commercial utilization of resulting inventions, the encouraging of participation by private persons in ERDA's programs, the fostering of competition, and the prevention of undue market concentration or the creation or maintenance of other situations inconsistent with antitrust law. The conferenco

committee recognizes that there may be times when it is not possible to attain each of the objectives immediately and simultaneously for any one determination. The Administrator should, therefore, seek to reconcile these objectives in light of the overall purposes of the patent policy section. Over time, however, the conference committee believes each of these objectives can and should be attained.

In carrying out these objectives, the Administrator is authorized to grant a waiver either at the time of contracting or after identification of the invention without the necessity for a hearing. In determining whether a waiver will best serve the interests of the United States and the general public at the time of contracting, the Administrator is specifically required under subsection (d) to include as considerations paragraphs (1) through (11).

The enumerated criteria are designed to indicate certain basic considerations which should be considered. The conference committee recognizes that there may be occasions when application of the various considerations to a particular case could cause conflicting results. In those instances, the Administrator will have to reconcile the differences giving due regard to the overall purposes of the patent policy provisions. It is not intended that specific findings be made as to each and every consideration.

The Administrator is similarly authorized in subsection (e) to grant a waiver to a contractor or inventor after identification of an invention if he determines that the interests of the United States and the general public will best be served thereby. The Administrator is required to specifically include as considerations paragraphs (4) through (11) of subsection (d), and paragraphs (1) and (2) of subsection (e). As the invention will have been identified, the Administrator shall consider each of the enumerated criteria as it specifically applies to that invention.

Subsection (f) permits—but does not require—the Administrator to reserve to a contractor a revocable, or irrevocable, nonexclusive, paid-up license, and rights to patents in foreign countries, subject to enumerated safeguards. The conference committee recognizes that the general reservation of an irrevocable nonexclusive license may impact adversely on the grant of exclusive licenses under subsection (g). It is expected that the Administrator, therefore, will carefully exercise his discretion to grant an irrevocable nonexclusive license.

With respect to the granting of exclusive licenses, the Administrator may (but is not required to) grant such licenses under subsection (g) only if he determines, after notice and opportunity for hearing, that the criteria specified in subsection (g) are satisfied.

The Administrator is authorized and directed under subsection (h) to include in each waiver of rights or grant of an exclusive or partially exclusive license such terms and conditions as may be appropriate for the protection of the interests of the United States and the general public. Subsections (h)(1) through (h)(7) enumerate certain minimum safeguards which he must include.

Subsections (i), (j), (k), and (l), respectively, provide for an annual periodic notice to the public of the right to the hearing provided in subsection (h)(7), and the availability of the records of determination provided for by this section; consideration of the small business status of an applicant in granting waivers or licenses; the taking of all suitable and necessary steps to protect any invention or discovery to which the United States holds title; and the placing of ERDA under the provisions of chapter 17, title 35.

Subsection (m) is the definitional section. Subsection (m)(2), which defines contract as including "other arrangement," is intended to encompass any and all other arrangements. The reference to section 9 in section 7 is intended to make this clear.

The reference in subsection (d)(11) to nonprofit educational institutions with approved technology transfer capabilities and programs is included among other reasons to assure that these institutions would not be disqualified from consideration for a waiver due to a lack of established commercial position or manufacturing capability. The approval requirement in the subsection is designed to assure that such institutions do not become a conduit for avoidance of the safeguards provided throughout the section. There is no intention for other nonprofit or research institutions to meet any lesser standard than required of other applicants.

Subsections (c)(4), (d)(10), (g)(2), and (h)(7)(A) contain references to competitive principles to be followed by the Administrator in the manner, and in accordance with the procedures, indicated in those subsections. These principles embrace existing legal concepts. The conference committee shares the President's concern that the effect of Executive Branch agency decisions should not be to interfere with or to affect adversely or unnecessarily our free market economy, and intends that this section be construed in a manner consistent with our fundamental national economic policy of fostering free competitive enterprise. The four references to these principles are intended to be construed harmoniously, reflecting judicial construction of the language from which they are derived, and their objective is to prevent situations before they reach the effects our antitrust law is meant to prevent. The phrase "preventing ... the creation or maintenance of other situations inconsistent with the antitrust laws" is derived from section 105 of the Atomic Energy Act. The phrases "tend substantially to lessen competition" and "undue concentration" are derived from section 7 of the Clayton Act. They are intended to incorporate, in a nonmerger context, judicial construction of these concepts. These provisions are meant to check a tendency toward undue concentration before the harmful effect occurs. In considering these antitrust aspects, it is not intended that the Administrator supplant the high level effort expended by the Justice Department or the Federal Trade Commission. The intensive job of ferreting out antitrust violations is beyond ERDA's capability and mission; and it is not intended that ERDA undertake the elaborate type of evidentiary record generally required in an antitrust proceeding. For the purpose of subsection (h)(7), the Administration is intended to be considered an "interested person."

Subsection 9(n) reflects the conferees' concern for harmonizing the patent policies within ERDA. For example, nuclear programs will continue to follow the patent policy of the Atomic Energy Act while nonnuclear programs will follow the patent policy of section 9. This arrangement is likely to result in some anomalies. Thus, the conferees believed it prudent to include a study of the Federal patent policies affecting ERDA's programs. The conferees believe that section 9 will establish a workable patent policy until the study or experience demonstrates a need for revision.

The study will also investigate the desirability of mandatory licensing. The report resulting from that study should contain empirical data, in addition to opinions and conclusions. It also would be useful for the report to analyze the effect on research and development activity of existing legislative and judicial mandatory licensing provisions.

The study is to be undertaken by the Administrator with participation of other Federal agencies. The purpose of listing the Attorney General and the Secretary of Commerce is to assure that the views of those departments are available to the Congress. If there are differences of opinion between the agencies, the report should reflect the different views with dissenting or individual views where appropriate. The Administrator should also make allowance for input from interested non-Federal parties. One approach might be to hold public hearings from which the Administrator can better assess the public's concerns.

The study will be referred to the appropriate congressional committees. Several committees have an interest in this area. Although the study will not necessarily lead to changes in our patent laws *per se* (title 35 of the United States Code), nevertheless, copies of it should be forwarded to both House and Senate Judiciary Committees. The specific responsibility for the ERDA patent policy rests in the committees with legislative jurisdiction over ERDA. These latter committees are expected to give due consideration to any suggestions which the Judiciary Committees may make regarding the report, and the Senate conferees believe that consideration of the report in the Senate should be with the full participation of the Senate Judiciary Committee.

RELATIONSHIP TO ANTITRUST LAWS

Section 114 of the Senate bill assures that no act taken or condition reached, pursuant to this Act, is immunized or otherwise protected from the full applicability of antitrust law as defined in subsection 114(b). The House amendment (section 8) contained an identical provision. The conference substitute incorporates this language in section 10.

ENVIRONMENTAL EVALUATION

In section 120 of the Senate bill the Council on Environmental Quality is authorized and directed to carry out a continuing assessment of the progress of energy research and development to evaluate the adequacy of attention to energy conservation and environmental concerns. The House amendment (section 9) adopts the same language except for minor changes including the deletion of paragraph 120(a)(3). The House amendment was adopted.

ACQUISITION OF ESSENTIAL MATERIALS

Section 12 is a modified version of section 121 of the Senate bill. It provides authority for the President to require the priority allocation of scarce materials which are found to be critical and essential for the performance of ERDA's responsibilities. There was no similar provision in the House amendment. The conference committee refined the language of the provision to require specific findings by the President as a prerequisite to the implementation of this authority and to set forth a procedure for Congressional review of rules or orders proposed pursuant to this section.

WATER RESOURCE EVALUATION

The provisions in section 13 are derived from section 10 and subsection 3(c) of the House amendment. There was no similar provision in the Senate bill. The conference substitute incorporates the language of section 10 with some modifications. The conference substitute directs the Water Resources Council to undertake assessments at the request of the Administrator. Studies or assessments of the availability of adequate water resources shall be performed as a precondition for Federal assistance in demonstration plant projects and in commercial application of energy technologies as provided for in section 3(c) of the House amendment. All reports on the assessments

of water availability are required to be printed in the Federal Register.

The conference committee modified section 10 of the House amendment to include the full range of legal constraints which apply to the consumptive use of water. The committee recognizes that the body of State and Federal law which protects water rights is vital to the social and economic stability of vast regions of the Nation. It is essential that choices and decisions made concerning the future of national energy production give full consideration to the impacts which new energy developments will have upon water resources and indirectly upon other uses of water. State and Federal legal constraints upon the use of water must be observed in energy-related decisions to insure that they do not disrupt other equally important social objectives.

ENERGY-RELATED INVENTIONS

The language in section 105 of the Senate bill directed the National Science Foundation to evaluate promising energy-related inventions. There was no comparable provision in the House amendment. The conference substitute in section 14 follows the Senate provision but designates the National Bureau of Standards as the responsible agency. An office with similar functions for inventions in general has existed within NBS for over thirty years. The conference committee directs NBS to keep ERDA currently advised of promising inventions which should be considered for inclusion in the energy research, development, and demonstration programs.

REPORTS TO CONGRESS

The Senate bill contained in section 119 and subsection 122(c) provides for annual reports to Congress, including the activities of the previous calendar year. The House amendment (section 6) required an annual report no later than sixty days from the end of the fiscal year detailing the activities during the current fiscal year and no later than ninety legislative days prior to each fiscal year an annual report setting forth a detailed program for energy research and development. Six general aspects of the program objectives and impact were required to be discussed in the report.

The conference substitute requires the Administrator to submit a report to the Congress concurrent with the submission of the President's annual budget to the Congress. The Administrator is directed to report the activities carried out pursuant to this Act during the preceding fiscal year and to revise annually the comprehensive energy research, development, and demonstration plan and the comprehensive nonnuclear energy research, development, and demonstration program prepared pursuant to section 6. The same six general aspects of the program objectives and impact are required to be addressed in the report. A provision was included to avoid duplication with the reporting requirements of the Energy Reorganization Act of 1974 relating to nonnuclear energy.

APPROPRIATION AUTHORIZATION

The appropriations provisions (subsections 122 (a) and (b)) of the Senate bill as passed were substantially outdated by the passage of the Energy Reorganization Act of 1974 and by the expenditures for nonnuclear energy research and development in the current fiscal year. Section 13 of the House amendment provided for authorization for appropriation to the Administrator only such sums as the Congress may hereafter authorize by law with fund transfers authorized for the Council on Environmental Quality and the Water Resources Council. The conference committee adopted these provisions as subsection 16 (a) and (b). The conference substitute provision in subsection 16(c) is a revision of subsection 13(c) of the House amendment to conform to the provisions of section 8 of the conference substitute.

MORRIS UDALL,
JONATHAN B. BINGHAM,
JOHN F. SEIBERLING,
OLIN TEAGUE,
MIKE MCCORMACK,
PHILIP E. RUPPE,
JOHN DELLENBACK,
CHARLES A. MOSHER,
Managers on the Part of the House.

HENRY M. JACKSON,
LEE METCALF,
J. BENNETT JOHNSTON, JR.,
FLOYD K. HASKELL,
GAYLORD NELSON,
MARK HATFIELD,
JAMES L. BUCKLEY,
JAMES A. MCCLURE,
Managers on the Part of the Senate.

ESTABLISHING PRIVACY PROTECTION COMMISSION

Mr. MOORHEAD of Pennsylvania. Mr. Speaker, I ask unanimous consent to take from the Speaker's table the Senate bill (S. 3418) to establish a Privacy Protection Commission, to provide management systems in Federal agencies and certain other organizations with respect to the gathering and disclosure of information concerning individuals, and for other purposes, and ask for its immediate consideration.

The Clerk read the title of the Senate bill.

The SPEAKER. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

The Clerk read the Senate bill, as follows:

S. 3418

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I—PRIVACY PROTECTION COMMISSION

ESTABLISHMENT OF COMMISSION

SEC. 101. (a) There is established as an independent agency of the executive branch of the Government the Privacy Protection Commission.

(b) (1) The Commission shall be composed of five members who shall be appointed by the President, by and with the advice and consent of the Senate, from among members of the public at large who, by reason of their knowledge and expertise in any of the following areas: civil rights and liberties, law, social sciences, and computer technology, business, and State and local government, are well qualified for service on the Commission and who are not otherwise officers or employees of the United States. Not more than three of the members of the Commission shall be adherents of the same political party.

(2) One of the Commissioners shall be appointed Chairman by the President.

(3) A Commissioner appointed as Chairman shall serve as Chairman until the expiration of his term as a Commissioner of the Commission (except that he may continue to serve as Chairman for so long as he remains a Commissioner and his successor as Chairman has not taken office). An individual may be appointed as a Commissioner at the same time he is appointed Chairman.

(c) The Chairman shall preside at all meetings of the Commission and a quorum for the transaction of business shall consist of at least three members present (but the Chairman may designate an Acting Chairman who may preside in the absence of the Chairman). Each member of the Commission, including the Chairman, shall have equal responsibility and authority in all decisions and actions of the Commission, shall have full access to all information relating to the performance of his duties or responsibilities, and shall have one vote. Action of the Commission shall be determined by a majority vote of the members present. The Chairman (or Acting Chairman) shall be the official spokesman of the Commission in its relations with the Congress, Government agencies, persons, or the public, and, on behalf of the Commission, shall see to the faithful execution of the policies and decisions of the Commission, and shall report thereon to the Commission from time to time or as the Commission may direct.

(d) Each Commissioner shall be compensated at the rate provided for under section 5314 of title 5 of the United States Code, relating to level IV of the Executive Schedule.

(e) Commissioners shall serve for terms of three years. No Commissioner may serve more than two terms. Vacancies in the membership of the Commission shall be filled in the same manner in which the original appointment was made.

(f) Vacancies in the membership of the Commission, as long as there are three Commissioners in office, shall not impair the power of the Commission to execute the functions and powers of the Commission.

(g) The members of the Commission shall not engage in any other employment during their tenure as members of the Commission.

(h) (1) Whenever the Commission submits any budget estimate or request to the President or the Office of Management and Budget, it shall concurrently transmit a copy of that request to Congress.

(2) Whenever the Commission submits any legislative recommendations, or testimony, or comments on legislation to the President or Office of Management and Budget, it shall concurrently transmit a copy thereof to the Congress. No officer or agency of the United States shall have any authority to require the Commission to submit its legislative recommendations, or testimony, or comments on legislation, to any officer or agency of the United States for approval, comments, or review, prior to the submission of such recommendations, testimony, or comments to the Congress.

PERSONNEL OF THE COMMISSION

SEC. 102. (a) (1) The Commission shall appoint an Executive Director who shall perform such duties as the Commission may determine. Such appointment may be made without regard to the provisions of title 5, United States Code.

(2) The Executive Director shall be compensated at a rate not in excess of maximum rate for GS-18 of the General Schedule under section 5332 of title 5, United States Code.

(b) The Commission is authorized to appoint and fix the compensation of such officers and employees, and prescribe their functions and duties, as may be necessary to carry out the provisions of this Act.

(c) The Commission may obtain the services of experts and consultants in accordance with the provisions of section 3109 of title 5, United States Code.

FUNCTIONS OF THE COMMISSION

SEC. 103. (a) The Commission shall—

(1) publish annually a United States Directory of Information Systems containing the information specified to provide notice under section 201(c)(3) of this Act for each information system subject to the provisions of this Act and a listing of all statutes which