101th CONGRESS
1st Session

S._____

To establish a national program to improve collaboration between the national laboratory system of the Department of Energy and the private sector so as to foster the development of technologies in areas of significant economic potential in order to enhance the Nation's economic competitiveness and strategic well-being, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JANUARY ___, 1989

MR. DOMENICI (for himself,_____) introduced the following bill; which was read twice and referred to the Committee on _____.

A BILL

To establish a national program to improve collaboration between the national laboratory system of the Department of Energy and the private sector so as to foster the development of technologies in areas of significant economic potential in order to enhance the Nation's economic competitiveness and strategic well-being, and for other purposes.

BE IT ENACTED BY THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE UNITED STATES OF AMERICA IN CONGRESS ASSEMBLED, That this Act may be referred to as the "Department of Energy National Laboratory Cooperative Research and Technology Competitiveness Act of 1989".

SEC. 2. DEFINITIONS.

For purposes of this Act, the term --

(1)(A) except as provided in subparagraphs (B) and (C), "National Laboratory" means the following Department of Energy laboratories --

(i) Lawrence-Livermore National Laboratory;

(ii) Lawrence-Berkeley National Laboratory;

(iii) Los Alamos National Laboratory;

(iv) Sandia National Laboratory;

(v) Fermi National Accelerator Laboratory;

(vi) Princeton Plasma Physics Laboratory;

(vii) Idaho National Engineering Laboratory;

(viii) Argonne National Laboratory;

(ix) Brookhaven National Laboratory;

(x) Oak Ridge National Laboratory (including the Y-12 Plant);

(xi) Pacific Northwest Laboratory;

(xii) Ames Laboratory;

(xiii) Stanford Linear Accelerator Center;

(xiv) Bates Linear Accelerator Facility;

(xv) Center for Energy and Environment Research;

(xvi) Coal Fired Flow Facility;

(xvii) Energy Technology Engineering Center;

(xviii) Hanford Engineering Development Laboratory;

(xix) Inhalation Toxicology Research Institute;

(xx) Laboratory for Energy-Related Health Research;

(xxi) Laboratory of Biomedical and Environmental Sciences;

(xxii) Laboratory of Radiobiology and Environmental Health;

(xxiii) Michigan State University-DOE Plant Research Laboratory;

(xxiv) Notre Dame Radiation Laboratory;

(xxv) Oak Ridge Associated Universities;

(xxvi) Radiobiology Laboratory;

(xxvii) Savannah River Ecology Laboratory;

(xxviii) Savannah River Laboratory;

(xxix) Solar Energy Research Institute; and

(xxx) Stanford Synchrotron Radiation Laboratory.

(B) Such term does not include Naval Nuclear Propulsion Reactor Laboratories, or their contractors or subcontractors performing work covered under Executive Order 12344, as codified in section 7158 of title 42, United States Code.

(C) Such terms shall includes any future government-owned, contractor-operated laboratory facilities established as Department of Energy Multi-program Laboratories or Program-Dedicated Facilities.

(2) "contract" means any contract, grant, or cooperative agreement as those terms are used in sections 6303, 6304, and 6305 of title 31, United States Code, entered into between any Federal agency and any contractor

for the performance of research, experimental, or developmental activities funded in whole or in part by the Federal Government. Such term includes any assignment, substitution of parties, or subcontract of any type entered into for the performance of such activities.

(3) "cooperative research and development agreement" means any agreement between the Directors of one or more National Laboratories and one or more Federal or non-federal parties under which the Federal government, through such National Laboratory or Laboratories, provides personnel, services, facilities, equipment, or other resources with or without reimbursement and the non-federal parties provide funds, personnel, services, facilities, and equipment, or other resources toward the conduct of specified research, development, and demonstration efforts that are consistent with the missions of the National Laboratory; except that such term does not include a procurement contract or cooperative agreement as those terms are used in sections 6303, 6304, and 6305 of title 31, United States Code.

(4) "director of a National Laboratory" means the employee of the Department of Energy laboratory manager or operator who directs the management and operation of such National Laboratory;

(5) "Federal Agency" means any executive agency as defined in section 105 of title 5, United States Code, and the military departments defined by section 102 of title 5,

United States Code.

(6) "funding agreement" means any contract, grant, or cooperative agreement entered into between the Secretary of Energy and a contractor operating a National Laboratory that provides for such contractor to perform research, experimental, and development activities at such National Laboratory.

(7) "laboratory manager or operator" means the contractor who has signed a contract with the Secretary for management and operation of a National Laboratory (but only with respect to activities relating to such management or operation); and

(8) "Secretary" means the Secretary of Energy.

SEC. 3. FINDINGS.

The Congress finds that --

(1) the Nation's economic competitiveness and strategic well-being depends on the development of advanced energy technologies, such as those anticipated to evolve from research and development on high temperature superconducting materials;

(2) the national laboratories of the Department of Energy constitute a multi-discipline capability in general science, energy science, and defense related technology development with incomparable research and computer facilities with research and support staffs of demonstrated international expertise;

(3) while the National Laboratories have demonstrated successes in technology transfer into the private sector, the effectiveness of this effort can be significantly enhanced if --

(A) industry is made more aware of the National Laboratory research and development capabilities and activities;

(B) technology transfer is established as a significant element of the mission of the National Laboratories;

(C) the National Laboratories are made more aware of industry market requirements; and

(D) industry becomes more involved with the activities of National Laboratories at an early enough in the research and development process to provide guidance on the development of commercially viable products; and

(4) a national initiative is needed, if there is to be a timely transfer of energy technology developments from the National Laboratories to the private sector, except that nuclear weapons design, development, production, and maintenance must remain the primary mission of the Department of Energy nuclear weapons complex.

SEC. 4. PURPOSES.

The purposes of this Act are to --

(1) enhance collaboration between universities and the

private sector and the National Laboratories of the Department of Energy so as to foster the development of technologies in areas of significant economic potential.

(2) establish that it is a mission of each National Laboratories to foster, through the transfer of technology to the private sector consistent with the national security and a fair return on the taxpayers' investment, the commercialization of technologies developed in connection with its research, experimental, and development activities; and

(3) better meet the continuing responsibility of the Federal Government to ensure the full use of the results of the Nation's Federal investment in the National Laboratories' research and development in meeting international competition.

SEC. 5. DIRECTIVE.

The Secretary shall --

(1) take such actions as he deems appropriate and consistent with law to further the mission set forth in section 3; and

(2) ensure that the mission set forth in section 3 is carried out in a manner that is not detrimental to the military mission of any National Laboratory.

TITLE I --NATIONAL LABORATORY CENTERS FOR TECHNOLOGY MANAGEMENT

SEC. 101. POLICY.

For the purposes of title I, it is the policy of Congress

that --

(1) intellectual property rights in technology developed at the National Laboratories be managed so as to promote the competitiveness of United States industries;

(2) the Secretary prescribe regulations for cooperative research and development agreements and intellectual property rights arising under such agreements; and

(3) the directors of the National Laboratories devise implementing procedures consistent with the policy guidelines set forth by the Secretary.

SEC. 102. COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS.

(a) GENERAL AUTHORITY. -- The Secretary shall prescribe regulations ensuring that the contract for the management and operation of any National Laboratory authorizes the director of such Laboratory:

(1) to enter into cooperative research and development agreements and to negotiate the terms and conditions of such agreements with--

(A) other federal agencies;

(B) units of state or local government;

(C) industrial organizations including corporations, partnerships and limited partnerships, consortia, and industrial development organizations;

(D) public and private foundations;

(E) nonprofit organizations (including universities); or

(F) other persons or entities, including licensees of inventions or computer software owned by the National Laboratory manager or operator.

(2) to negotiate intellectual property licensing agreements for National Laboratory owned inventions or computer software, assigned or licensed to the National Laboratory by third parties including voluntary assignment by employees.

(b) SPECIFIC AUTHORITY. -- Each director of a National Laboratory may include provisions in any cooperative research and development agreement negotiated and entered into pursuant to this section permitting such laboratory manager or operator to --

(1) accept, retain, and use funds, personnel, services, and property from collaborative parties and provide personnel, services, and property to collaborating parties;

(2) grant or agree to grant in advance to a collaborative party, intellectual property licenses, assignments, or options thereto, in any invention or computer software, made, in whole or in part, by an employee of a National Laboratory under the cooperative research and development agreement; and

(3) to the extent consistent with Department of Energy regulations, orders, and directives pertaining to conflict of interest, permit employees or former employees of a laboratory manager or operator to participate in efforts to

transfer to the private sector inventions or computer software, such employees developed or made while in the service of such laboratory.

SEC. 103. CRITERIA FOR ENTERING INTO AGREEMENTS.

In determining whether to enter into a cooperative research and development agreements, the director of a National Laboratory shall determine that --

(1) facilities at the National Laboratory will be available to conduct the activities that are the subject of the cooperative research and development agreement;

(2) the activities that are the subject of the cooperative research and development agreement would not interfere with programs of the Department of Energy;

(3) the activities that are the subject of the cooperative research and development agreement would not create a future detrimental burden on the National Laboratory; and

(4) the proposed cooperative research and development agreement is consistent with applicable guidelines of the Secretary pursuant to section 102 for cooperative research and development agreements.

SEC. 104. AGREEMENT CONSIDERATIONS.

In deciding which cooperative research and development agreements to enter into, and which licenses, assignments, and options to grant, the director of a National Laboratory shall --

(1) give special consideration to small business firms

and consortia involving small business firms;

(2) give preference to business units located in the United States that agree that products embodying inventions or computer software, made under the cooperative research and development agreement or produced through the use of such inventions or computer software, will be developed and manufactured substantially in the United States;

(3) in the case of any industrial organizations or other person subject to the control of a foreign company or government, as appropriate, take into consideration whether or not such foreign government permits United States agencies, organizations, or other persons to enter into cooperative research and development agreements and licensing agreements; and

(4) provide universities the opportunity to participate in such cooperative research and development agreements when such participation will contribute to the purpose of this Act.

SEC. 105. MODIFICATION OR DISAPPROVAL OF AGREEMENT.

The Secretary may disapprove or require the modification of a cooperative research and development agreement under subsection (a). Such agreement shall provide a 30-day period beginning on the date the agreement is submitted to the Secretary by the director of the National Laboratory concerned, within which period such action may be taken by the Secretary. In any case in which the Secretary disapproves or requires the modification of

any cooperative agreement submitted under this title, the Secretary shall transmit a written explanation of such disapproval or modification to the director of the National Laboratory concerned within 30 days after such submission. If such action is not taken within this thirty day period, the cooperative research and development agreement shall be deemed approved.

SEC. 106. LIMITATION.

The cumulative total of non-appropriated funds contracted to be received in any year under all cooperative research and development agreements entered into by the director of any National Laboratory under this Act may not exceed an amount equal to 10 percent of the annual budget of such National Laboratory, unless approved in advance by the Secretary.

SEC. 107. CONFLICTS OF INTEREST.

(a) In negotiating or entering into any cooperative research and development agreement under this section, and in negotiating or granting any license or assignment with respect to intellectual property subject to this section, the director of a National Laboratory (and any employee of a laboratory manager or operator who may be acting on behalf of the Director) shall carry out such actions --

(1) in compliance with all applicable laws and regulations;

(2) in the public interest; and

(3) not for the benefit of the director of the National

Laboratory, the employee, a related person, the laboratory manager or operator, or a related entity.

(b) A director of a National Laboratory may not enter into negotiations --

(1) for a cooperative research and development agreement with a related person or a related entity; or

(2) for granting a license or assignment with respect to intellectual property subject to this section to a related person or a related entity until such negotiations are approved in advance by the Secretary.

(c) Any cooperative research and development agreement proposed to be entered into by a director of a National Laboratory with a related person or a related entity, and any license or assignment proposed to be granted by the director of a National Laboratory to a related person or a related entity, may not become effective until it is approved by the Secretary.

(d) For purposes of this section, the term --

(1) "related person" means a person related to a director of a National Laboratory or to an employee of such a director by marriage, blood, or otherwise, as determined by the Secretary under regulations; and

(2) "related entity" means a parent corporation of a laboratory manager or operator, a subsidiary or affiliate of a laboratory manager or operator, or any other entity that has a financial relationship with, or that is acting as an agent for, a laboratory manager or

operator, as determined by the Secretary under regulations.

SEC. 105. RECORDS OF AGREEMENTS.

The director of each National Laboratory shall maintain a record of all cooperative research and development agreements entered into under this title, and shall submit annually a copy of such record to the Secretary.

SEC. 106. DUTIES AND RESPONSIBILITIES OF THE SECRETARY.

(a) The Secretary shall review all existing regulations, policy guidelines, orders, directives, procedures, and administrative processes associated with the abilities of the directors of the National Laboratories to:

(1) enter into cooperative relationships and cooperative research and development agreements with private industry or universities;

(2) undertake work-for-others; and

(3) operate user facilities.

(b) The Secretary shall review existing standards for resolving potential conflicts of interests to ensure that such standards adequately establish guidelines for situations likely to arise through the use of the authorities granted in this subtitle, including but not limited to cases where present or former National Laboratory employees or their partners negotiate licenses or assignments of titles to inventions or negotiate cooperative research and development agreements with Federal agencies (including the Department of Energy or the laboratory

manager or operator with which the employee involved is or was formerly employed).

(c) The Secretary shall--

(1) review the impact of the exchange of scientific information, scientific innovation, and commercialization resulting from cooperative research and development agreements.

(2) survey non-federal parties interested in entering into cooperative research and development agreements with the National Laboratories to determine if adequate measures exist to encourage scientific innovation and commercialization resulting from cooperative research and development agreements; and

(3) based on the results of such review and survey develop policy recommendations that shall be submitted to the Congress.

(d) The Secretary shall--

(1) formulate and carry out a comprehensive set of policy guidelines to advance the goals of this subtitle, based on the review under subsection (a);

(2) report to Congress and the President within 90 days after the date of the enactment of this subtitle on the status of this review; and

(3) within 180 days after the date of the enactment of this subtitle, implement the policy guidelines under paragraph (1) that do not require regulations under section

242.

SEC. 107. DEFINITIONS.

(a) For purposes of this title, the term--

(1) "collaborative party" means a party to a cooperative research and development agreement;

(2) "computer software" means recorded information, regardless of form or the media on which it may be recorded, comprising computer programs or documentation thereof;

(3) "intellectual property" means patents, trademarks, copyrights, mask works, and other forms of comparable property rights protected by federal law;

(4) "invention" means any invention that is or may be patentable or otherwise protected under Title 35, United States Code, or any novel variety of plant that is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.);

(5) "laboratory owned" means any rights in intellectual property conveyed under this title to a contractor operating a National Laboratory or any rights in intellectual property arising under the operating contract for a National Laboratory where rights are not expressly taken by the United States Government or by a subcontractor;

(6) "made" when used in conjunction with any invention means the conception or first actual reduction to practice of such invention;

(7) "subject invention" means any invention of a

National Laboratory first conceived or reduced to practice in the performance of work under a contract or funding agreement for the operation of a National Laboratory;

(8) "third parties" means domestic entities located in the United States who agree to manufacture and to conduct research and development substantially in the United States including --

(A) Federal agencies other than the Department of Energy;

(B) units of State or local government;

(C) industrial organizations, such as corporations, partnerships, limited partnerships, consortia, or industrial development organizations;

(D) public and private foundations;

(E) nonprofit organizations such as universities; and

(F) licensees of inventions or computer software owned by the laboratory manager or operator.

TITLE II -- CENTERS FOR RESEARCH ON RESEARCH ON HIGH-TEMPERATURE SUPERCONDUCTING TECHNOLOGIES

SEC. 201. FINDINGS.

For purposes of this title, the Congress finds that:

(1) extensive research in superconducting materials <u>is being conducted by the Department of Energy</u> to support its programmatic activities in High Energy Physics, Magnetic Fusion Energy, Energy Storage Systems, Electric Energy

Systems, and Energy Conservation, pursuant to the Federal Non-nuclear Energy Research and Development Act of 1974 (P.L. 93-577), the Energy Reorganization Act of 1974 (P.L. 93-483), and the Department of Energy Organization Act (P.L. 95-91);

(2) recent developments in high-temperature superconducting materials hold great promise for highly efficient energy storage and transmission, medical diagnostics, magnets for physics research and fusion reactors, and smaller super-computers;

(3) if the United States is a world leader in basic research on high-temperature superconducting materials, then programs supporting this research at the Department of Defense, the National Science Foundation, and the Department of Energy should be maintained and strengthened;

(4) there is intense international interest in the commercialization of high-temperature superconducting materials and the key to success in its commercialization lies in the rapid development of these materials and the identification of their applications; and

(5) the National Laboratories have demonstrated expertise in high-temperature superconductivity research and have a proven record in research in enabling technologies which can benefit the industrial sector efforts in the commercialization of new technologies and product development.

SEC. 202. PURPOSES.

The purposes of this title are --

(1) to provide for research on critical enabling technologies to assist United States industry in the commercialization of high-temperature superconductors;

(2) to provide national organization and coordination in the research, development and commercialization of high-temperature superconductors; and

(3) to encourage private industry, university, and National Laboratory interaction through centers for research on high-temperature superconductivity at the National Laboratories.

SEC. 203. ESTABLISHMENT OF THE HIGH-TEMPERATURE SUPERCONDUCTOR RESEARCH INITIATIVE.

The Secretary of Energy shall initiate and carry out a cooperative program of research on enabling high-temperature superconductor technology and on the practical applications of such technology (here-in-after referred to in this title as the "Initiative").

SEC. 205. COUNCIL ON ENABLING TECHNOLOGIES.

(a) ESTABLISHMENT. -- The Secretary of Energy shall form the "Council for Research on Enabling Technologies" (here-in-after referred to in this title as the "Council") that shall be composed or representatives of appropriate government agencies, universities, and industry to provide advice to the Secretary in setting goals and strategies for the Initiative.

(b) DUTIES. -- The Council shall recommend guidelines for the release of the technical findings and developments made by the cooperative research centers established pursuant to subsection (b). Guidelines for releasing technical findings set forth by the Council shall be consistent with guidelines set forth by affected Federal agencies.

(c) AVOIDANCE OF DUPLICATION.-- The Council shall keep appraised of activities taking place at the existing Research Centers on Superconductivity and Superconductivity Pilot Centers. In carrying out its responsibilities under subsection (a), the Council shall recommend to the Secretary and such Centers measures to ensure that unnecessarily duplicative research or activities are not being carried out at these Centers.

SEC. 206. CENTERS FOR RESEARCH ON ENABLING TECHNOLOGIES.

(a) The Secretary shall establish cooperative research centers in enabling technologies for high-temperature superconducting materials and applications (here-in-after referred to in this title as "Centers") at one or more National Laboratories with appropriate university and private industry participants.

(b) The Centers shall be located at National Laboratories that demonstrate expertise in --

(1) high-temperature superconductivity research; and

(2) research in associated technologies including --

(A) thin film and bulk ceramic synthesis and processing; and

(B) characterization of physical, chemical, and structural properties in materials.

SEC. 207. PARTICIPATION BY THE NATIONAL LABORATORIES.

(a) MISSION OF NATIONAL LABORATORIES.-- The Secretary shall ensure that the National Laboratories ~~shall~~ may participate in the Initiative, to the extent that such participation is consistent with the purposes of this Act.

(b) AGREEMENTS.-- The Secretary shall enter into such contracts and agreements, with other Federal agencies, with U.S. private industrial or research organizations, or consortia, or with any college or university, as may be necessary to provide for the active participation of the National Laboratories in the Initiative.

(c) REQUIREMENTS. -- The Initiative shall include provisions for one or more National Laboratory to conduct research, experimental, and development activities relating to high-temperature superconductivity. Such activities may include research, experimental, and development activities in associated technologies (including thin film and bulk ceramic synthesis and processing and the characterization of physical, chemical, and structural properties in materials).

SEC. 208. PERSONNEL EXCHANGES.

The Initiative may include provisions for temporary exchanges of personnel between any domestic firm or university referred to in this title and the National Laboratories that are participating in the Initiative. The exchange of personnel may

be subject to such restrictions, limitations, terms and conditions as the Secretary considers necessary in the interest of national security.

SEC. 209. OTHER DEPARTMENT OF ENERGY RESOURCES.

(a) AVAILABILITY OF RESOURCES.-- Subject to subsection (b), the Secretary may make available to other departments or agencies of the Federal Government, and to any participant in research and development projects under the Initiative, any facilities, personnel, equipment, services, and other resources of the Department of Energy for the purpose of conducting research and development projects under the Initiative.

(b) REIMBURSEMENT. -- At his discretion, the Secretary may, to the extent practicable, make facilities available under this section only to the extent that the cost of the use of such facilities is reimbursed by the user.

SEC. 210. BUDGETING FOR HIGH-TEMPERATURE SUPERCONDUCTIVITY RESEARCH.

To the extent the Secretary considers appropriate and necessary, the Secretary, in preparing the research and development budget of the Department of Energy to be included in the annual budget submitted to the Congress by the President for fiscal years 1990, 1991, 1992, 1993, 1994, and 1995 under section 1105(a) of title 31, United States Code, shall provide for programs, projects, and activities that encourage the development of new technology in the field of high-temperature superconductivity.

SEC. 211. COST-SHARING AGREEMENTS.

(a) PERMITTED PROVISIONS. -- The Secretary shall ensure, pursuant to title I, that contracts for the operation of National Laboratories provide the director of each National Laboratory that is participating in the Initiative or the contractor operating any such National Laboratory the authority to receive funds under any cooperative research and development agreement entered into with a domestic firm or university under the Initiative.

(b) CONSIDERATIONS. -- The director of each National Laboratory that is participating in the Initiative, in determining the type and extent of its laboratory participation in carrying out work for others, shall undertake such work only when facilities are available and there use would not interfere with Department of Energy programs, and such nor create a future detrimental burden on the National Laboratory.

(c) LIMITATIONS. -- (1) Not more than 10 percent of the annual operating budget of any National Laboratory may be derived from non-appropriated funds derived from contracts entered into under the Initiative, except to the extent approved in advance by the Secretary.

(2) Under subsection (a), no National Laboratory may receive more than $10,000,000 of non-appropriated funds, or the equivalent of such amount, from any person under any cooperative research and development agreement entered into under the Initiative, except to the extent approved in

advance by the Secretary.

SEC. 212. ~~OVERSIGHT RELATING TO THE INITIATIVE.~~

~~(a) DISAPPROVAL AND MODIFICATION OF AGREEMENTS.---(1) The Secretary may review a cooperative research and development agreement for the purpose of disapproving or requiring the modification of the cooperative research and development agreement. Each such agreement shall provide a 30-day period within which the agreement may be disapproved or modified by the Secretary beginning on the date the agreement is submitted to the Secretary.~~

~~(2) In any case in which the Secretary disapproves, or requires the modification of, any agreement submitted to the Secretary under this section, within 30 days after such submission, the Secretary shall transmit a written explanation of such disapproval or modification to the head of the National Laboratory concerned.~~

(a) RECORD OF AGREEMENTS. -- Each National Laboratory shall maintain a record of all agreements entered into under this subtitle section and submit such record to the Secretary on an annual basis.

SEC. 213. AVOIDANCE OF DUPLICATION.

In carrying out the Initiative, the Secretary shall ensure that unnecessarily duplicative research is not performed at the research facilities of the Department of Energy (including the National Laboratories) that are participating in the Initiative.

TITLE III. GENERAL PROVISIONS

SEC. 301. AUTHORITY OF THE SECRETARY.

(a) Nothing in this Act may be construed to affect or limit --

(1) the authority of the Secretary to control all classified or sensitive (as defined pursuant to section 148 of the Atomic Energy Act of 1954, as amended) research contracts and agreements to which the Department of Energy or a National Laboratory is a party; or

(2) the vesting of title in the Department of Energy of all intellectual property that is made under classified or sensitive (as defined pursuant to section 148 of the Atomic Energy Act of 1954, as amended) research in a National Laboratory or in a facility of a collaborative party under a cooperative research and development agreement and that is classified or sensitive.

SEC. 302. REGULATIONS.

(a) Within 180 days after the date of the enactment of this Act, the Secretary shall prescribe regulations for implementing sections 102, 303, and 304. In prescribing such regulations the Secretary shall provide opportunity for public comment on proposed regulations.

(b) Any such regulations shall be guided by the purpose of this Act.

(c) Before the Secretary issues regulations under this section, the Secretary shall consult with the Office of Federal

Procurement Policy to review such regulations for consistency with this subtitle.

SEC. 303. PATENT OWNERSHIP AND THE CONDITIONS OF OWNERSHIP.

(a) DISPOSAL OF TITLE TO INVENTIONS. -- Notwithstanding section 152 of the Atomic Energy Act of 1954 (42 U.S.C. 2182), section 9 of the Federal Non-nuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908), or other provision of law, the Secretary shall dispose of the title to any subject invention made in the performance of a Department of Energy contract to manage or operate any National Laboratory in the same manner as applied to small business and nonprofit organizations under Chapter 18 of title 35, United States Code, except that a condition of such disposal shall be the retention by the United States of a royalty-free license to use such subject invention for United States Government purposes.

(b) RETENTION OF TITLE BY UNITED STATES. -- (1) Whenever a manager, operator or employee of a National Laboratory under a contract makes a subject invention to which the Secretary has determined (at the time of contracting for the management and operation of the National Laboratory) to retain title for exceptional circumstances under section 202(a)(ii) of title 35, United States Code, the title to the subject invention shall be retained by the Government unless the National Laboratory at which the invention is made requests title to such invention and the Secretary does not notify the director of the National Laboratory --

(A) within 90 days after receipt of such request that the subject invention is covered by a determination under such section 202(a)(ii); or

(B) within 150 days after receipt of such request that the subject invention has been classified or has been designated sensitive technical information as authorized by section 148 of the Atomic Energy Act of 1954.

(2) Whenever a manager or operator of a National Laboratory makes a subject invention to which the Secretary has determined (at the time of contracting for the management and operation of the National Laboratory) to retain title because the invention is made in the course of or under a funding agreement described in section 202(a)(iv) of title 35, United States Code, the title to the subject invention shall be retained by the Government unless the director of the National Laboratory at which the invention is made requests title to such invention and the Secretary does not notify the director of the National Laboratory ~~within 90 days after receipt of such request that the invention~~ drop --

(A) within 150 days after receipt of such request that the subject invention has been classified or has been designated sensitive technical information as authorized by section 148 of the Atomic Energy Act of 1954; and

(B) within 90 days after receipt of such request that the subject invention is covered by a determination under such subsection 202(a)(iv).

(3) The Secretary may not use export control statues or regulations as the sole basis for refusing a request for title to a subject invention.

(4) If the Secretary does not notify the director of the National Laboratory that has requested title to a subject invention in accordance with this section, such National Laboratory shall be deemed to have elected title to the invention under the Government-wide contractor patentable ownership provisions of Chapter 18 of title 35, United States Code.

(c) The Secretary may, by rule with notice and public comment under 5 U.S.C. 553, exempt from the operation of subsection (b) any category of inventions that he determines is directly related to research and development on the design, manufacture, or utilization of any nuclear weapon or component.

SEC. 304. INTELLECTUAL PROPERTY.

(a) CONTRACT PROVISIONS. -- Any Department of Energy contract for the management or operation of a National Laboratory shall provide --

(1) that any royalties or income that is earned by the manager or operator of a National Laboratory from the licensing of laboratory-owned intellectual property rights in any fiscal year shall be used as authorized under subsection 202(c)(7)(E) of title 35, United States Code and Section 13(a)(1)(B)(i)-(iv) and section 13(a)(2)-(4) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710c(a)(1)(B)(i)-(iv) and 3710c(a)(2)-(4); and

(2) that the costs of obtaining and protecting intellectual property rights in any invention or computer software, owned by the National Laboratory shall be paid for by the laboratory manager or operator as a cost shared expense under a cooperative research and development agreement.

(b) The Secretary shall ensure that all intellectual property granted to a laboratory manager or operator shall be subject to a royalty-free license to use and reproduce such intellectual property for United States Government purposes.

(c) The Secretary shall establish procedures to have the management of intellectual property rights, including procurement, retention, and licensing of such rights, in connection with laboratory-owned inventions and computer software, be the responsibility of the director of the National Laboratory at which the invention or computer software are made, developed or assigned.

(d) The Secretary shall prescribe regulations, orders, or directives prohibiting any laboratory manager or operator who has received title to intellectual property under this section from receiving money or other benefit from the use or licensing of such property for the benefit of the laboratory manager or operator, except for research and development associated with activities at the National Laboratory to promote technology transfer as authorized by law, or in special circumstances, as may be approved by the appropriate Department of Energy

Operations Office manager.

(e) COMPENSATION. -- (1) Subject to paragraph (2), in return for retaining title to any intellectual property rights in any invention or discovery made in performance of a Department of Energy cooperative research and development agreement, the manager or operator of any National Laboratory shall pay to the United States reasonable compensation based on the value of the technology transferred. The amount of the payment arising as a result of the transfer shall be set by an arbitration board consisting of one member selected by the manager or operator of the National Laboratory, one member selected by the Secretary, and one member jointly selected by the manager or operator and the Secretary. In determining the payment, the arbitration boards shall set an amount that is proportionate with the research and development costs funded by the United States. The arbitration board shall have discretion to permit the payment to be made in installments according to the extent the manager or operator uses or employs the intellectual property.

(2) Paragraph (1) shall not apply if:

(A) the contract manager and operator is operating the National Laboratory for no profit or fee beyond expenses; and

(B) such contract manager or operator is offering the intellectual property for fair market value and any value or royalties the contractor derives from the intellectual property will be returned to the National

Laboratory or the Federal Treasury in accordance with Section 202(c)(7)(E) of title 35, United States Code.

SEC. 305. MARCH-IN RIGHTS.

The Secretary may require the licensing to third parties of all intellectual property owned by the laboratory manager or operator that is subject to the provisions of this subtitle in the same manner as provided under section 203 of title 35, United States Code.

SEC. 306. OVERSIGHT.

(a) The Secretary, the Inspector General of the Department of Energy, and the Comptroller General shall conduct periodic audits of activities of the National Laboratories under this Act.

(b) Nothing in this Act diminishes the responsibility of the Secretary to keep Congress fully and currently informed or the right of Congress to review and receive information with respect to any agreement, license, or intellectual property subject to this Act.

SEC. 307. COPYRIGHTS AND PATENTS.

This title does not confer any new authority on the Department of Energy to obtain a copyright or a patent.

SEC. 308. LIABILITY OF THE UNITED STATES.

The United States may not be held liable for a claim brought by any person alleging injury resulting from a product embodying intellectual property or from a product produced through the use of intellectual property acquired under this

subtitle. The preceding sentence does not apply to such a product if the product is produced by the Federal Government or at the request of the Federal Government.

SEC. 309. EFFECTIVE DATE.

This Act shall take effect 180 days after the date of the enactment of this Act (regardless of whether regulations have been promulgated under section 302). The Secretary shall immediately enter into negotiations with each laboratory manager or operator to amend all existing contracts for the operation of the National Laboratories, to reflect this Act.

TO: NORM LATICEK

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FROM JOE ALLEN

DOC

Tel: 377-8100

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I NEED YOUR COMMENTS BY NOON TODAY (IF POSSIBLE)

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

July 6, 1988

MEMORANDUM FOR: DEPARTMENT OF COMMERCE
DEPARTMENT OF DEFENSE
DEPARTMENT OF ENERGY
DEPARTMENT OF JUSTICE
DEPARTMENT OF TREASURY

FROM: Joseph S. Nezi
Deputy Associate Director
for Energy and Science

SUBJECT: Interagency Coordinating Meeting on Title IV of S.1480: Technology Management Policy for the Department of Energy's (DOE) National Laboratories

On Friday, July 8, at 2 p.m., there will be a meeting to discuss Title IV of Senator Domenici's bill 1480 (also called Amendment No. 1627-Department of Energy National Laboratory Cooperative Research Initiatives Act). It will be held in Conference Room 10103 at the New Executive Office Building.

Title IV contains Technology Management policies that will guide the DOE laboratories in their future joint ventures. It includes Intellectual Property contract Provisions, Technical Data and computer Software Ownership Conditions, Patent Ownership Conditions, and Provisions on Authorities to Enter into Cooperative R&D Agreements.

Because of the breadth of these issues, it is important that all the agencies with concerns in these areas meet to help develop an Administration Position on these provisions. It is very important that each of the subsections be discussed and the views of each of the various agencies be understood. Then OMB staff will then be able to incocporate agency views into a position statement on this Title. The resulting statement could then be used either for a "floor position" on the bill or as a means for suggestions changes, for discussions with the Senator or his staff.

In Attachment A there are terse descriptions of the contents of each section of Title IV and, where appropriate, terse statements reflecting agency concerns OMB staff feel are yet to be resolved. Some of these concerns are major, others are minor; nevertheless, they need to be cleared up so that everyone knows where we stand on the issues.

I have also attached a short piece from a Department of Energy (DOE) regulation that describes the function and role of DOE's National Laboratory Contractors (Attachment B). These labs are Government Owned/Contractor Operated (GO/CO) entities. One contractor, such as the University of California, may operate more than one lab (in this case 3 labs) or it may operate only one, such as the University of Chicago at the Argonne National Laboratory near Chicago. In either case, lab directors are the employees of the contractor, not the manager of the contracting firm.

I hope this exposition of the issues will enable us to sort through the various sections of Title IV as quickly as possible so we can spend the bulk of the hour in discussing each agency's rationale for their positions on the issues.

Please call Judith Bostock at 395-3475 with the names and birthdates of all attendees for this Friday afternoon meeting so we can pre-clear you into the building. Thank you for your cooperation.

Attachments

Attachment A

Discussion: Title XV of S.1480

Sec.401-404: Findings, Purpose, Policy, and Definitions of Title IV-Technology Management at the Department of Energy National Laboratories

Statement:

The National Laboratories have demonstrated successes in technology transfer into the private sector but this has not been considered a main mission of these laboratories. The National Laboratories should be controlled in such a manner as to promote the use of technology and devices developed in the course of their research to improve the competitive advantage of U.S. industries. More effective management means streamlining the contracting process while adequately protecting the intellectual property present in the laboratory.

Thus (401(2)), "management authority for intellectual property must be granted to the Directors of the DOE National Laboratories to ensure that they can negotiate with industry to set up cooperative R&D agreements."

Issues:

1. Status of the Director of a DOE National Laboratory: National Laboratories are operated by contractors. The only role of the contractor is to execute agency directives. The "Labs" are not legal entities and do not employ Federal personnel. The only legal entity involved is the contractor responsible for managing the laboratory. Effectively S.1480 by-passes the contractor, and gives management authority to one of the contractor's employees. But the laboratory director is neither responsible for execution of the contract to manage the laboratory nor is this individual able to execute a contract on behalf of the Government without a delegation from the agency. (Energy, Justice argue this is a major concern.)

Commerce and Treasury, on the other hand, would argue that although, perhaps, not the "best" way to achieve Federal technology transfer, an approach such as the Domenici bill would ensure that there is an entity besides the Department with the responsibility to see to commercialization of the results of Federally-funded R&D. Whether this entity is the director of the laboratory or the contractor, per se, is not a key issue.

2. Approach to Technology Transfer: Ignoring legal issues, is this the best way to achieve the desired result of technology transfer from the DOE laboratories? (General: All agencies have this concern.)

The Department of Energy argues that the agency should require that all income earning intellectual property resulting from collaborative research agreements between DOE laboratories and private sector parties should be given directly to the private sector entity participating in the agreement. The National Laboratories should be viewed as technical resources for the private sector; they should be controlled by policies that would prevent them from being in competition with private sector entities.

Non-issue eliminates incentive to report on involved

3. Larger Issues: Historically DOE has had the mandate to disseminate and publish all of its research for the use of the public. OMB notes that now a series of technology transfer bills has clearly moved to a policy of withholding information so that it can be exploited for private profit. Nevertheless, no one is suggesting that particular private companies should be given exclusive use of Government research facilities and then exclusive use of the lucrative products that the company chooses to develop with Government funds. Thus, there is a conflict between the individual steps taken to advance technology transfer and the overall purpose of Government laboratories. This basic conflict between public and private interests remains to be resolved. Perhaps that is the issue that should be discussed instead of focusing on the details of legislation that simply side-steps this basic conflict.

B.S.!! WPSNG

Sec.405-406: Cooperative R&D Agreements and Contract Considerations

Statement:

The Secretary of Energy shall permit the director of any of its National Laboratories to enter into cooperative agreements on behalf of the Department of Energy and to negotiate intellectual property licensing agreements for its own laboratory.

Under such agreements the director may accept, retain, and use funds, personnel, services, and property from collaborating parties and provide personnel, services and property to these collaborating parties.

Agreements of value less than or equal to $1 million are not subject to the approval of the Secretary of Energy. For agreements exceeding $1 million the Secretary of Energy shall approve, disapprove, or require modifications within a 30-day period beginning on the date the laboratory notifies the Secretary. Agreements shall not exceed 10 percent of a laboratory's annual budget and each agreement shall not exceed $10 million.

Issues:

1. Constitutionality: It is officials of the Executive Branch who are responsible to both Congress and the President for executing agency programs. Is it constitutional for a non-Government employee to execute the functions of an Executive Branch officer or his Federal designee? (Justice notes, too, that this constitutional argument and other more complex arguments would also relate to Title II of the bill.)

2. Appropriation Transfers: Congress appropriates funds for specific purposes. It is the responsibility of the Executive Branch to ensure that these funds are expended for those purposes. At the very least, legislation would have to delegate authority to a private sector entity or a private individual in a legally responsible manner and appropriate funds to be spent by that entity or that individual. (Energy, OMB, and Justice find this a very troublesome aspect of the legislation.)

Sec. 407: Patent Ownership and the Conditions of Ownership

Statement:

A National Laboratory for the purposes of this section shall be treated in the same manner as small business and non-profit organizations.

The laboratory shall have automatic election of title rights to inventions unless the Department has notified the laboratory within 90 days that the invention has been designated sensitive or classified or that the technical information is covered by an exceptional circumstances determination.

The Secretary of Energy may not use export control statutes or regulations as a basis for refusing to grant the rights of automatic election of an invention. Exceptional circumstances provisions of the patent code are not applicable solely on the basis of these export control statutes.

Issues:

1. Export Control Statutes: These statutes alone are not a valid reason to withhold potentially valuable commercial property from contractors. (General: All agencies agree on this point.)

   However, Energy and Defense both argue that contractors must legally ensure compliance with all export control laws and regulations, particularly in areas affecting nuclear proliferation and nuclear weaponry. Otherwise, the agency has sufficient cause to deny automatic election of all patent and licensing rights. Rights to inventions would then be awarded to the contractor on a case-by-case basis.

2. Technology Transfer and Commercialization: National Laboratories are neither small businesses nor nonprofit organizations with entry into the commercial arena. If the object is commercialization of products and processes arising from Government-funded R&D, the private sector party collaborating with the laboratory should automatically be given all intellectual property subject to its efforts to commercialize these results. (Energy)

3. Federal Technology Transfer Policy: Senate bill 1480 is a step in the right direction. Some legislation is needed to bring the Department of Energy patent policy into conformity with that of other Federal agencies. Current practice of the agency does not go far enough in the area of technology transfer and patent policy to satisfy even Executive Order 12591. (Commerce, Treasury)

Sec. 408: Technical Data or Computer Software and the Conditions of Ownership

Statement:

Technical Data and Software shall not be published and made available to the public by the agency when it has potential commercial value. It remains the property of the laboratory through the director of the laboratory.

The director of the laboratory shall determine if this material should be available to the public under Freedom of Information Act (FOIA) requests during the term of nondisclosure to the public.

Issues:

1. Development of Data and Software by the National Laboratories: The Department of Energy (DOE) has a statutory requirement to disseminate the technical data and software developed under DOE funded research grants to the public and to U.S. industry. This information relates to and supports the authorized agency mission. Much of this information is developed specifically for application and utilization at DOE facilities other than the developing site.

   Technical data and software of this kind must be available for the entire agency's use or the taxpayer will have to pay many times over for the same information and capabilities. The role and function of DOE's GO/CO's is at issue here. (Energy)

2. FOIA exemptions: This legislation would vest the director of a National Laboratory, a private citizen, with the discretion to determine what is and what is not material subject to FOIA regulations. Again, the role and function of DOE's GO/CO's is at issue. (Energy)

3. Larger Issues: This legislation contains a very broad definition of technical data

   - the term "technical data" means recorded information of a scientific or technical nature regardless of form or the media on which it may be recorded.

   This definition would stop the publication or dilute the content of most scientific articles published by employees of DOE laboratories. The use of this definition would seriously alter the currently existing relationship between the Department of Energy and its National Laboratory contractors. Current practice consists of sole-sourcing to these laboratories broadly defined, non-goal oriented research contracts to carry out Congressionally-mandated directives. This

practice relies on the implicit assumption that the single function of these laboratories is to conduct research with a long-term payoff that has no immediate application in any identifiable arena including the commercial sector.

To set the laboratories up as property holders with vested interests in commercial enterprises is to change radically their nature and function. Today they are entities that carry out important research tasks that private research establishments find to be too basic or too long-range to engage their interest. The product of research at DOE has been publishable results. The purpose in generating technical data has been to make the results generally available to the public. The real issue to be discussed relative to this provision and the more general intellectual property provision is the role of DOE GO/CO laboratories in the implementation of national science policy. (OMB, Energy)

Sec. 409-411: Intellectual Property Contract Provisions, Special Rule for Waiver of Government License Rights, March-in Rights

Statement:

The management of all intellectual property rights developed within a laboratory shall be the responsibility of the director. All royalties or income from it will be used as specified in the Federal Technology Transfer Act of 1986.

All costs of obtaining and protecting intellectual property rights owned by the National Laboratory shall be paid for by the Department when not offset by income earned from licensing of laboratory-owned intellectual property rights.

Unless the contractor operates the laboratory for no profit or fee beyond expenses or allows all income earned from laboratory intellectual property to revert to the laboratory, the contractor shall pay to the U.S. Government reasonable compensation based on the value of the technology transferred.

When intellectual property rights are licensed by the laboratory to third parties, standard march-in rights are available to the agency to ensure that the technology is commercialized.

Issues:

1. For cooperative ventures: The collaborating industrial party has a direct interest and investment in the research as well as the capability to commercialize the technology. Thus, the most efficient transfer into the private sector will be realized by automatically giving all rights and income earning property to the commercial firm. (Energy)

2. Conflict of Interest Policies: Contractors of the Department of Energy are private sector entities. All provisions of the contracts between the Department and the contractor must be negotiated. Should the contractor (or equally the laboratory director) be given the blanket authorities suggested in the legislation, it is necessary that conflict of interest provisions governing technology transfer activities be statutorily mandated. Without that mandate such contract provisions, protecting both the contractor and the public, would be almost impossible to negotiate. (Energy, OMB)

3. Costs Borne by the Government: Patent litigation can be enormously expensive. It is totally unwise to adopt a policy in which the Department of Energy agrees to indemnify its contractors against such litigation. The Government would then be involved in support of a contractor's position with

regard to property over which the Government has no management control.

It is also an unwarranted subsidy to have the Federal Government pay all costs for private sector licensing agreements. There is no reason to adopt such a policy simply because the private sector party in this instance is a National Laboratory management contractor or its laboratory director. (Energy, OMB)

Attachment B

DOE Management and Operating Contractors (from a proposed Class Patent Rule)

not true

Regarding GOCO contractors, the Department of Energy (DOE), unlike most other Government agencies, employs contractors to manage and operate certain of its major research, production and weapons facilities. The following principles, as set forth by the Secretary of Energy, provide the policy framework for these management and operating (GOCO) contracts:

(1) The Government retains responsibility for overall program management and project technical direction while the contractor is responsible for the day-to-day management of the work;

(2) The Government and contractor have an identity of interest in the mission being pursued;

(3) The parties intend a long-term close relationship;

(4) The Government assumes virtually all financial risk;

(5) The contractor is hired to manage;

(6) The contractor broadly supports the performance of Government functions by executing programs of national significance on behalf of the Government; and

(7) The Government ultimately is responsible for security, health and safety and the proper use of public funds.

These contractor-operated Government facilities have for some forty years benefited DOE and its predecessor agencies in carrying out agency research, development, and demonstration (R,D&D) programs. The GOCO facilities have, in great measure, had a remarkable record of scientific and technical success. This success is due, in part, to the unique contractuual relationship that exists between DOE and its GOCOs; viz., the dedication of both technical and administrative skills of a private organization to a significant Federal mission in a close, long-term, cooperative relationship.

Doesn't take into consideration the serendipitious nature of invention