Union Calendar No. 288

103D CONGRESS
2D SESSION

H. R. 1432

[Report No. 103–484, Parts I and II]

A BILL

To establish missions for Department of Energy research and development laboratories, provide for the evaluation of laboratory effectiveness in accomplishing such missions, and reorganize and consolidate Department of Energy technology transfer activities, and for other purposes.

MAY 19, 1994

Reported from the Committee on Science, Space, and Technology with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

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IN THE HOUSE OF REPRESENTATIVES

MARCH 23, 1993

Mr. BROWN of California (for himself, Mrs. LLOYD, Mr. VALENTINE, Mr. BOUCHER, and Mr. WYDEN) introduced the following bill; which was referred jointly to the Committees on Science, Space, and Technology and Armed Services

SEPTEMBER 15, 1993

Additional sponsors: Mr. BACCHUS of Florida, Mr. INSLEE, Ms. FURSE, Mr. WAXMAN, Mr. MILLER of California, Ms. PELOSI, Mr. DELLUMS, Ms. ESHOO, and Mr. SCOTT

APRIL 26, 1994

Reported from the Committee on Armed Services with an amendment

[Strike out all after the enacting clause and insert the part printed in italic]

MAY 19, 1994

Additional sponsors: Ms. WOOLSEY and Mr. MINETA

MAY 19, 1994

Reported from the Committee on Science, Space, and Technology with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in boldface roman]

[For text of introduced bill, see copy of bill as introduced on March 23, 1993]

A BILL

To establish missions for Department of Energy research and development laboratories, provide for the evaluation of laboratory effectiveness in accomplishing such missions, and reorganize and consolidate Department of Energy technology transfer activities, and for other purposes.

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

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Department of Energy Laboratory Technology Act of 1994''.

SEC. 2. FINDINGS.

The Congress finds that—

(1) the Department of Energy maintains an extensive system of laboratories which represent a national resource, comprised of a dedicated, multi-disciplinary work force of scientists and engineers, sophisticated scientific instrumentation, and unique research facilities;

(2) the end of the Cold War has significantly reduced the Nation's requirements for nuclear weapons systems development and production, but the departmental laboratories retain a vital national security mission to maintain the Nation's confidence in the safety, security, and reliability of the nuclear stock-

pile and to support verification of arms control agreements, dismantlement of weapons, nonproliferation and counterproliferation efforts, intelligence requirements, work for the Department of Defense, and other national security requirements;

(3) the United States faces serious national security, energy, economic, and environmental challenges toward which the resources of departmental laboratories could be applied in a more concerted fashion;

(4) in order to contribute to United States economic competitiveness and maintain the core competencies required to meet national security requirements, departmental laboratories will need to cooperate with industry, State and local governments, universities, and nonprofit organizations on a broader scale;

(5) the legislative and bureaucratic frameworks for cooperative efforts between departmental laboratories and industry, State and local governments, universities, and nonprofit organizations should be streamlined to facilitate partnerships;

(6) departmental laboratories' interaction with industry goes beyond the movement of technologies developed at the laboratories to industry, State and local governments, universities, and nonprofit organi-

zations; it has included and should continue to include a two-way flow of ideas, people, knowledge, and intellectual property, whereby partnerships provide benefits to the laboratory as well as to the nonlaboratory partners;

(7) independent reviews of departmental laboratories over the past two decades uniformly have emphasized the importance of maintaining well defined missions at these laboratories, in order to provide coherence, direction, and the basis for performance evaluation;

(8) as the missions of departmental laboratories, and other Federal laboratories, change in response to evolving national needs, the activities of these laboratories should be coordinated and evaluated to the maximum extent practicable in order to ensure that they are meeting their intended objectives; and

(9) the National Science and Technology Council, which is chaired by the President, is responsible for coordinating the science and technology policy making process and for integrating the President's science and technology policy agenda across the Federal Government, and should serve to coordinate activities at the Federal laboratories and to ensure the

implementation of measures for performance evaluation for such activities.

SEC. 3. DEFINITIONS.

For the purposes of this Act—

(1) the term ''Department'' means the Department of Energy;

(2) the term ''departmental laboratory'' means a Federal laboratory, or any other laboratory or facility designated by the Secretary, operated by or on behalf of the Department;

(3) the term ''departmental defense laboratories'' means the Lawrence Livermore National Laboratory, the Los Alamos National Laboratory, and the Sandia National Laboratories;

(4) the term ''Federal laboratory'' has the meaning given the term ''laboratory'' in section 12(d)(2) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a(d)(2));

(5) the term ''generic, precompetitive'' means having broad market potential but not yet associated with specific marketable products or product lines;

(6) the term ''mission'' means a clear statement of purpose to focus research and development activity at a Federal laboratory on specified objectives;

(7) the term ''Secretary'' means the Secretary of Energy; and

(8) the term ''technology transfer'' means—

(A) any collaborative effort involving a Federal laboratory and private industry, State or local governments, universities, or nonprofit organizations, whose goal is—

(i) to enhance the potential use by private industry, State or local governments, universities, or nonprofit organizations, of research and development sponsored by the Federal Government; or

(ii) to jointly develop new scientific or technical information or generic, precompetitive technology; or

(B) any process by which federally owned or originated technology, or the intellectual property rights associated with such technology, are transferred to private industry, State or local governments, universities, or nonprofit organizations.

SEC. 4. MISSIONS OF DEPARTMENTAL LABORATORIES.

(a) GENERAL AUTHORITY.—The Department is authorized to maintain departmental laboratories for the purpose of advancing the following missions:

(1) To maintain national security, as follows:

(A) To provide for the Nation's nuclear weapons requirements, to be stewards of the Nation's nuclear weapons stockpile, and to meet other national security requirements as determined by the President, including the advancement of science and technology for national security purposes.

(B) To reduce the threat of nuclear war, by assisting with the dismantlement of nuclear weapons, working to curb the proliferation of weapons of mass destruction, supporting efforts to counter the proliferation of weapons of mass destruction and their delivery systems, and conducting research on and the development of technologies needed for the effective verification of international arms control agreements, including prospective international arms control agreements.

(2) To ensure the Nation's energy supply, as follows:

(A) To reduce the Nation's reliance on imported and nonrenewable energy sources through research and development related to energy production and use, with emphasis on energy effi-

ciency, conservation, and renewable energy production.

(B) To conduct basic research in energy-related science and technology and in the fundamental understanding of matter, including construction and operation of unique scientific instruments and facilities for use by the Federal Government, academia, industry, and other appropriate non-Federal institutions.

(3) To carry out research and development for the purpose of minimizing the environmental impacts of the production and use of energy and materials, including missions as follows:

(A) To develop generic, precompetitive technologies aimed at reducing the generation of hazardous or nonhazardous waste or pollution, or reducing the consumption of energy or materials, while contributing to sustainable United States economic growth.

(B) To develop technologies and techniques for the safe disposal of hazardous waste or radioactive waste in order to accelerate the schedule of, and reduce the total cost of, cleaning up the hazardous waste sites associated with nuclear

weapons production and other programs funded by the Department.

(b) ADDITIONAL MISSIONS.—The Department is authorized to pursue additional missions at departmental laboratories beyond those identified in subsection (a) only—

(1) if such missions are assigned to the Department by the President, and only to the extent that—

(A) such laboratories possess substantial technical capabilities that can be devoted to such missions;

(B) such additional mission activities do not interfere with the pursuit of the missions identified in subsection (a); and

(C) involvement in such additional mission activities is coordinated with any other Federal agency or agencies which carry out such mission activities, as appropriate; or

(2) if such missions have been established by statute enacted before the date of enactment of this Act, and do not conflict with the missions established under this section.

(c) TECHNOLOGY TRANSFER.—(1)(A) Except as provided in subparagraph (B), the Department is authorized to use program funds at the departmental laboratories for technology transfer activities, whenever those activities are

consistent with and further an assigned mission of the departmental laboratory.

(B) Not more than 20 percent of funds made available to the Department in any fiscal year for weapons activities for research and development may be set aside for the technology transfer initiative described in the President's budget for weapons activities for that fiscal year.

(2) The Secretary shall—

(A) work with all Assistant Secretaries, Office directors, and other Department officials with responsibilities for managing research and development programs to ensure that technology transfer considerations are fully integrated into the planning and conduct of all research and development conducted at departmental laboratories;

(B) develop and issue departmental policies for technology transfer activities, with the goal of creating a stable and consistent policy framework for departmental collaborations with private industry, State or local governments, universities, or nonprofit organizations; and

(C) oversee the management and allocation of Department funding for technology transfer activities to ensure that such funding is available to all departmental laboratories without distinction as to whether

the laboratory is involved in defense or nondefense activities.

(3) Funds authorized to be appropriated to the Department of Energy and made available for laboratory-directed research and development shall be available for advancing generic, precompetitive research and development activities at the departmental laboratory to the point of providing the potential basis for technology transfer.

(d) EDUCATION.—The Department is authorized to use scientific, technical, and human resources at the departmental laboratories to support the national goal of improving the quality of science, mathematics, and engineering education in the United States.

SEC. 5. EVALUATION.

The Secretary shall, for each departmental laboratory—

(1) assign a mission or missions consistent with section 4(a) and (b);

(2) establish goals in each mission area against which the performance of the departmental laboratory will be evaluated;

(3) develop a technology transfer plan with specific objectives for collaborative efforts between the laboratory and private industry, State or local governments, universities, or nonprofit organizations in

order to coordinate, direct, and enhance the impact of such collaborations, based on the core intellectual and technical competencies of the laboratory;

(4) ensure that for each new technology transfer project and for each ongoing technology transfer project, technical milestones, an estimate of the duration of the project, and an estimate of the total cost of the project are established;

(5) regularly assess the degree to which goals and objectives established pursuant to paragraphs (2) and (3) have been achieved, in terms of performance, impact, or accomplishments, employing evaluative procedures and methods specific and appropriate to each mission area; and

(6) include in the Secretary's annual report to Congress required under section 657 of the Department of Energy Organization Act—

(A) a statement of missions and goals for the departmental laboratory assigned or established pursuant to paragraphs (1) and (2);

(B) an explanation for any proposed modifications in the mission or missions for the departmental laboratory;

(C) the technology transfer plan required under paragraph (3);

(D) for any technology transfer project involving a Federal commitment of $500,000 or more—

(i) the technical and financial data called for in paragraph (4); and

(ii) technical and financial variances from the original estimates as called for in paragraph (4); and

(E) the assessment required under paragraph (5), along with a statement of any planned, ongoing, or completed actions based on this assessment.

SEC. 6. REPORT ON FUTURE USE OF DEPARTMENTAL LABORATORIES.

(a) REQUIREMENT.—The Secretary, in coordination with the Secretary of Defense and other appropriate Federal officers, shall submit to Congress within 6 months after the date of enactment of this Act, a report on the future use of the departmental laboratories.

(b) ALTERNATIVES.—Such report shall identify and examine the costs and benefits of alternatives to the current mission assignments, budgets, and management structures of the departmental laboratories. The alternatives examined should be those which seek to enhance the laboratories' contribution to United States basic science or economic com-

petitiveness while maintaining the laboratories' abilities to perform their assigned missions.

(c) PRESERVATION OF NUCLEAR WEAPONS COMPETENCIES.—Such report shall identify and examine ways to ensure that the Nation preserves the core intellectual and technical competencies of the United States in nuclear weapons, including weapons design, system integration, manufacturing, security, use control, reliability assessment, and certification, and shall include an identification of any existing or anticipated deficiencies in retaining trained personnel in such areas.

(d) COST REDUCTION OPTIONS.—Such report shall identify and examine options for reducing the cost of the Department's nuclear weapons research, development, engineering, and test-related programs by eliminating any unnecessary redundancies between the departmental defense laboratories, including options that maintain a process of peer review by more than one laboratory for nuclear weapons design activities and options that eliminate such review process. The report should assess feasibility, costs, and risks for each identified option. Costs to be identified and examined should include both cost savings due to consolidation and conversion costs, including an assessment of work force retraining and environmental cleanup.

SEC. 7. INDUSTRIAL ADVICE.

(a) ADVICE TO SECRETARY.—The Secretary shall seek advice from representatives of United States industry, and of educational institutions and professional and technical societies in the United States, who have experience in the industrial sector, and may establish within the Department an advisory board to provide the Secretary with advice regarding the Department's activities aimed at collaborating with industry in the areas of research, technology development, and technology transfer.

(b) ADVICE TO DEPARTMENTAL LABORATORY DIRECTORS.—The director of each departmental laboratory shall seek advice from representatives of United States industry, and of educational institutions and professional and technical societies in the United States, who have experience in the industrial sector, and may establish an advisory group, to assist such director in—

(1) integrating technology transfer considerations into the planning and performance evaluation of laboratory research and development activities;

(2) evaluating new initiatives proposed by the departmental laboratory and identifying opportunities for collaborative efforts with United States industry based on those initiatives; and

(3) evaluating the long-term direction of ongoing programs at the departmental laboratory from the perspective of United States industry.

(c) USE OF EXISTING BOARDS.—The Secretary or the director of a departmental laboratory may utilize existing advisory boards to achieve the purposes of this section.

SEC. 8. AMENDMENTS TO STEVENSON-WYDLER TECHNOLOGY INNOVATION ACT OF 1980.

Section 12 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a) is amended—

(1) in subsection (a), by inserting after paragraph (2) the following:

''The head of any agency using the authority given it under paragraph (1) to enter into cooperative research and development agreements shall make all reasonable efforts to expedite the negotiation, processing, and approval of such agreements.''; and

(2) in subsection (c)(5)—

(A) by amending subparagraph (C)(i) to read as follows:

''(C)(i) Except as provided in subparagraphs (D) and (E), any agency which has contracted with a non-Federal entity to operate a laboratory shall review and approve, request specific modifications to, or disapprove a joint work statement and cooperative research and development agree-

ment that is submitted by the director of such laboratory within 30 days after such submission. In any case in which such an agency disapproves or requests the modification of a joint work statement or cooperative research and development agreement submitted under this section, the agency shall promptly transmit a written explanation of such disapproval or modification to the director of the laboratory concerned. In any case where an agency has requested specific modifications to a joint work statement or cooperative research and development agreement, the agency shall approve or disapprove any resubmission of such joint work statement or cooperative research and development agreement within 15 days after resubmission. No agreement may be entered into by a Government-owned, contractor-operated laboratory under this section before approval of both the cooperative research and development agreement and a joint work statement.'';

(B) by striking clauses (ii), (iv), and (vi) of subparagraph (C);

(C) by redesignating clauses (iii) and (v) as clauses (ii) and (iv), respectively;

(D) by inserting after subparagraph (C)(ii) the following new clause:

''(iii) Any cooperative research and development agreement involving a Federal commitment of $500,000 or more

shall contain technical milestones and other appropriate performance goals and evaluation criteria, with an anticipated schedule for meeting such milestones, goals, and criteria. Each sponsoring Federal agency shall conduct appropriate reviews of the work performed within such cooperative research and development agreement to determine whether such agreements are meeting established milestones, require modification, or warrant termination.'';

(E) in subparagraph (C)(iv), as so redesignated by subparagraph (C) of this paragraph—

(i) by striking ''under clause (iv) within'' and inserting in lieu thereof ''of a cooperative research and development agreement under clause (i) within'';

(ii) by striking ''successive 30-day period'' and inserting in lieu thereof ''successive 10-day period''; and

(iii) by striking ''under clause (iv).'' and inserting in lieu thereof ''under clause (i).'';

(F) by redesignating subparagraph (D) as subparagraph (E); and

(G) by inserting after subparagraph (C) the following new subparagraph:

''(D)(i) A Federal agency may permit the director of any of its Government-owned, contractor-operated laboratories to enter into a cooperative research and development agreement involving a Federal commitment of $500,000 or less, whenever that activity is consistent with and furthers an assigned mission of the laboratory, without the specific approval of the agency for the cooperative research and development agreement.

''(ii) A laboratory director who is granted authority by a Federal agency to enter into a cooperative research and development agreement pursuant to clause (i) shall, upon request, provide the Federal agency with an explanation of how the agreement will complement and contribute to the laboratory's missions and activities.''.

SEC. 9. NATIONAL TECHNOLOGY PARTNERSHIP AWARD.

(a) ESTABLISHMENT.—The Secretary is authorized to establish a National Technology Partnership Award for presentation to private sector or Federal Government organizations or individuals which have substantially benefited the economic or social well-being of the United States through public sector-private sector collaboration involving technology development or technology transfer, and which as a consequence are deserving of special recognition.

(b) FUNDING.—The Secretary is authorized to seek and accept gifts from public and private sources to carry out

a program to administer the National Technology Partnership Award.

SEC. 10. FEDERAL LABORATORY MISSION EVALUATION AND COORDINATION.

The President, through the National Science and Technology Council, shall—

(1) review on an ongoing basis the missions of, activities conducted at, and scientific, technical, and human resources at, Federal laboratories, with the goals of—

(A) improving the efficiency and effectiveness of the overall Federal laboratory system; and

(B) ensuring that research and development conducted at Federal laboratories is coordinated to maximize its contribution to United States economic growth, environmental protection, national security, expansion of human knowledge, and other important national goals;

(2) develop and ensure the implementation of a process for assigning missions to the Federal laboratories with the best scientific, technical, and human capabilities for successfully addressing such missions;

(3) develop and ensure implementation, as appropriate, of a cross-cutting program evaluation sys-

tem for research and development activities at the Federal laboratories including, where appropriate, the establishment of technical milestones and other measures for performance evaluation for major activities at Federal laboratories;

(4) develop guidelines governing the application of intellectual property law for technology transfer activities at Federal laboratories;

(5) determine on an ongoing basis whether specific Federal laboratories should be realigned, consolidated, closed, or otherwise altered in order to meet the goals stated in paragraph (1);

(6) review the process by which the Federal Government enters into cooperative research and development agreements with companies that are not United States-owned companies (as defined in section 28(j)(2) of the National Institute of Standards and Technology Act (15 U.S.C. 278n(j)(2))); and

(7) prepare, and submit to the Congress within 1 year after the date of enactment of this Act, a plan for carrying out this section.

SEC. 11. POLICY ON CAPITAL PROJECTS AND CONSTRUCTION.

(a) REQUIREMENT OF PRIOR AUTHORIZATION.—(1) No funds are authorized to be appropriated to the Secretary

for any substantial construction project, substantial equipment acquisition, or major construction project unless a report on such project or acquisition has been provided to Congress in accordance with subsection (b).

(2) The Secretary may not obligate any funds for any substantial construction project, substantial equipment acquisition, or major construction project unless such project or acquisition has been specifically authorized by statute.

(3) This subsection may not be amended or modified except by specific reference to this subsection.

(b) REPORTS TO CONGRESS.—(1) Within 180 days after the date of the enactment of this Act, the Secretary shall submit to the Congress a report that identifies all construction projects and acquisitions of the Department of Energy described in subsection (a) for which the preliminary design phase is completed but the construction or acquisition is not completed. Such report shall include—

(A) an estimate of the total cost of completion of the construction project or acquisition, itemized by individual activity and by fiscal year; and

(B) an identification of which construction projects or acquisitions have not been specifically authorized by statute.

The Secretary shall annually update and resubmit the report required by this paragraph, as part of the report re-

quired under section 15 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5914).

(2) The Secretary shall, after completion of the preliminary design phase of a major construction project, submit to the Congress a report containing—

(A) an estimate of the total cost of construction of the facility;

(B) an estimate of the time required to complete construction;

(C) an estimate of the annual operating costs of the facility;

(D) the intended useful operating life of the facility; and

(E) an identification of any existing facilities to be closed as a result of the operation of the facility.

(c) DEFINITIONS.—For purposes of this section—

(1) the term ''major construction project'' means a nonmilitary research and development project whose construction costs are estimated to exceed $100,000,000 over the life of the project;

(2) the term ''substantial construction project'' means a nonmilitary research and development project whose construction costs are estimated to exceed $10,000,000, but not to exceed $100,000,000, over the life of the project; and

(3) the term ''substantial equipment acquisition'' means the acquisition of nonmilitary research and development equipment at a cost estimated to exceed $10,000,000 for the entire acquisition.

SECTION 1. SHORT TITLE.

This Act may be cited as the "Department of Energy Laboratory Technology Act of 1994".

SEC. 2. FINDINGS.

The Congress finds that—

(1) the Department of Energy maintains an extensive system of laboratories which represent a national resource, comprised of a dedicated, multi-disciplinary work force of scientists and engineers, sophisticated scientific instrumentation, and unique research facilities;

(2) the end of the Cold War has significantly reduced the Nation's requirements for nuclear weapons systems development and production, but the departmental laboratories retain a vital national security mission to maintain the Nation's confidence in the safety, security, and reliability of the nuclear stock-

pile and to support verification of arms control agreements, dismantlement of weapons, nonproliferation and counterproliferation efforts, intelligence requirements, work for the Department of Defense, and other national security requirements;

(3) the United States faces serious national security, energy, economic, and environmental challenges toward which the resources of departmental laboratories could be applied in a more concerted fashion;

(4) in order to contribute to United States economic competitiveness and maintain the core competencies required to meet national security requirements, departmental laboratories will need to cooperate with industry, State and local governments, universities, and nonprofit organizations on a broader scale;

(5) the legislative and bureaucratic frameworks for cooperative efforts between departmental laboratories and industry, State and local governments, uni-

versities, and nonprofit organizations should be streamlined to facilitate partnerships;

(6) departmental laboratories' interaction with industry goes beyond the movement of technologies developed at the laboratories to industry, State and local governments, universities, and nonprofit organizations; it has included and should continue to include a two-way flow of ideas, people, knowledge, and intellectual property, whereby partnerships provide benefits to the laboratory as well as to the nonlaboratory partners;

(7) independent reviews of departmental laboratories over the past two decades uniformly have emphasized the importance of maintaining well defined missions at these laboratories, in order to provide coherence, direction, and the basis for performance evaluation;

(8) as the missions of departmental laboratories, and other Federal laboratories, change in response to evolving national needs, the activities of these lab-

oratories should be coordinated and evaluated to the maximum extent practicable in order to ensure that they are meeting their intended objectives and that they complement and do not duplicate or conflict with existing capabilities in the private sector; and

(9) the National Science and Technology Council, which is chaired by the President, is responsible for coordinating the science and technology policy making process and for integrating the President's science and technology policy agenda across the Federal Government, and should serve to coordinate activities at the Federal laboratories and to ensure the implementation of measures for performance evaluation for such activities.

SEC. 3. DEFINITIONS.

For the purposes of this Act—

(1) the term "Department" means the Department of Energy;

(2) the term "departmental laboratory" means a Federal laboratory, or any other laboratory or facility designated by

the Secretary, operated by or on behalf of the Department;

(3) the term "departmental defense laboratories" means the Lawrence Livermore National Laboratory, the Los Alamos National Laboratory, and the Sandia National Laboratories;

(4) the term "Federal laboratory" has the meaning given the term "laboratory" in section 12(d)(2) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a(d)(2));

(5) the term "generic, precompetitive" means having broad market potential but not yet associated with specific marketable products or product lines;

(6) the term "mission" means a clear statement of purpose to focus research and development activity at a Federal laboratory on specified objectives;

(7) the term "Secretary" means the Secretary of Energy; and

(8) the term "technology transfer" means—

(A) any collaborative effort involving a Federal laboratory and private industry, State or local governments, universities, or nonprofit organizations, whose goal is—

(i) to enhance the potential use by private industry, State or local governments, universities, or nonprofit organizations, of research and development sponsored by the Federal Government; or

(ii) to jointly develop new scientific or technical information or generic, precompetitive technology; or

(B) any process by which federally owned or originated technology, or the intellectual property rights associated with such technology, are transferred to private industry, State or local governments, universities, or nonprofit organizations.

SEC. 4. MISSIONS OF DEPARTMENTAL LABORATORIES.

(a) GENERAL AUTHORITY.—The Department is authorized to maintain departmental laboratories for the purpose of advancing the following missions:

(1) To maintain national security, as follows:

(A) To provide for the Nation's nuclear weapons requirements, to be stewards of the Nation's nuclear weapons stockpile, and to meet other national security requirements as determined by the President, including the advancement of science and technology for national security purposes.

(B) To reduce the threat of nuclear war, by assisting with the dismantlement of nuclear weapons, working to curb the proliferation of weapons of mass destruction, supporting efforts to counter the proliferation of weapons of mass destruction and their delivery systems, and conducting research on and the development of technologies needed for the effective verification of inter-

national arms control agreements, including prospective international arms control agreements.

(2) To ensure the Nation's energy supply and to reduce the Nation's reliance on imported and nonrenewable energy sources through research and development on technologies that enhance energy supply and improve the efficiency of energy end uses with the goal of providing energy services at the lowest total cost to the Nation, including environmental costs.

(3) To conduct basic research in energy-related science and technology and in the fundamental understanding of matter, including construction and operation of unique scientific instruments and facilities for use by the Federal Government, academia, industry, and other appropriate non-Federal institutions.

(4) To carry out research and development for the purpose of minimizing the environmental impacts of the production

and use of energy and materials, including missions as follows:

(A) To develop generic, precompetitive technologies aimed at reducing the generation of hazardous or nonhazardous waste or pollution, or reducing the consumption of energy or materials, while contributing to sustainable United States economic growth.

(B) To develop technologies and techniques for the safe disposal of hazardous waste or radioactive waste in order to accelerate the schedule of, and reduce the total cost of, cleaning up the hazardous waste sites associated with nuclear weapons production and other programs funded by the Department.

(b) ADDITIONAL MISSIONS.—The Department is authorized to pursue additional missions at departmental laboratories beyond those identified in subsection (a) only—

(1) if such missions are assigned to the Department by the President, and only to the extent that—

(A) such laboratories possess substantial technical capabilities that can be devoted to such missions;

(B) such additional mission activities do not interfere with the pursuit of the missions identified in subsection (a); and

(C) involvement in such additional mission activities is coordinated with any other Federal agency or agencies which carry out such mission activities, as appropriate; or

(2) if such missions have been established by statute enacted before the date of enactment of this Act, and do not conflict with the missions established under this section.

(c) TECHNOLOGY TRANSFER.—(1)(A) Except as provided in subparagraph (B), the Department is authorized to use program funds at the departmental laboratories for technology transfer activities, whenever those activities

are consistent with and further an assigned mission of the departmental laboratory and consistent with the requirements of the Federal Technology Transfer Act of 1986. No Federal funds may be provided to, transfered to, or used by non-Federal entities for this purpose.

(B) Not more than 20 percent of funds made available to the Department in any fiscal year for weapons activities for research and development may be set aside for the technology transfer initiative described in the President's budget for weapons activities for that fiscal year.

(2) The Secretary shall—

(A) work with all Assistant Secretaries, Office directors, and other Department officials with responsibilities for managing research and development programs to ensure that technology transfer considerations are fully integrated into the planning and conduct of all research and development conducted at departmental laboratories;

(B) develop and issue departmental policies for technology transfer activities, with the goal of creating a stable and consistent policy framework for departmental collaborations with private industry, State or local governments, universities, or nonprofit organizations;

(C) oversee the management and allocation of Department funding for technology transfer activities to ensure that such funding is available to all departmental laboratories without distinction as to whether the laboratory is involved in defense or nondefense activities; and

(D) ensure, to the maximum extent practicable, that activities of the departmental laboratories complement and do not duplicate or conflict with existing capabilities in the private sector.

(3) Funds authorized to be appropriated to the Department of Energy and made available for laboratory-directed research and development shall be available for advancing generic, precompetitive research and development activities at the departmental labora-

tory to the point of providing the potential basis for technology transfer, and shall be available for research on highly innovative technologies including those based on yet unproven scientific theory.

(d) EDUCATION.—The Department is authorized to use scientific, technical, and human resources at the departmental laboratories to support the national goal of improving the quality of science, mathematics, and engineering education in the United States.

SEC. 5. EVALUATION.

The Secretary shall, for each departmental laboratory—

(1) assign a mission or missions consistent with section 4(a) and (b);

(2) establish goals in each mission area against which the performance of the departmental laboratory will be evaluated;

(3) develop a technology transfer plan with specific objectives for collaborative efforts between the laboratory and private industry, State or local governments, universities, or nonprofit organizations

in order to coordinate, direct, and enhance the impact of such collaborations, based on the core intellectual and technical competencies of the laboratory;

(4) ensure that for each new technology transfer project and for each ongoing technology transfer project, technical milestones, an estimate of the duration of the project, and an estimate of the total cost of the project are established;

(5) regularly assess the degree to which goals and objectives established pursuant to paragraphs (2) and (3) have been achieved, in terms of performance, impact, or accomplishments, employing evaluative procedures and methods specific and appropriate to each mission area; and

(6) include in the Secretary's annual report to Congress required under section 657 of the Department of Energy Organization Act—

(A) a statement of missions and goals for the departmental laboratory

assigned or established pursuant to paragraphs (1) and (2);

(B) an explanation for any proposed modifications in the mission or missions for the departmental laboratory;

(C) the technology transfer plan required under paragraph (3);

(D) for any technology transfer project involving a Federal commitment of $500,000 or more—

(i) the technical and financial data called for in paragraph (4); and

(ii) technical and financial variances from the original estimates as called for in paragraph (4); and.

(E) the assessment required under paragraph (5), along with a statement of any planned, ongoing, or completed actions based on this assessment.

SEC. 6. REPORT ON FUTURE USE OF DEPARTMENTAL LABORATORIES.

(a) REQUIREMENT.—The Secretary, in coordination with the Secretary of Defense and other appropriate Federal officers, shall submit to Congress within 6 months after the date of enactment of this Act, a report on the future use of the departmental laboratories.

(b) ALTERNATIVES.—Such report shall identify and examine the costs and benefits of alternatives to the current mission assignments, budgets, and management structures of the departmental laboratories. The alternatives examined should be those which seek to enhance the laboratories' contribution to United States basic science or economic competitiveness while maintaining the laboratories' abilities to perform their assigned missions.

(c) PRESERVATION OF NUCLEAR WEAPONS COMPETENCIES.—Such report shall identify and examine ways to ensure that the Nation preserves the core intellectual and technical competencies of the United States in nuclear weapons, including weapons design, system integration, manufacturing, security, use con-

trol, reliability assessment, and certification, and shall include an identification of any existing or anticipated deficiencies in retaining trained personnel in such areas.

(d) COST REDUCTION OPTIONS.—Such report shall identify and examine options for reducing the cost of the Department's nuclear weapons research, development, engineering, and test-related programs by eliminating any unnecessary redundancies between the departmental defense laboratories, including options that maintain a process of peer review by more than one laboratory for nuclear weapons design activities and options that eliminate such review process. The report should assess feasibility, costs, and risks for each identified option. Costs to be identified and examined should include both cost savings due to consolidation and conversion costs, including an assessment of work force retraining and environmental cleanup.

SEC. 7. INDUSTRIAL ADVICE.

(a) ADVICE TO SECRETARY.—The Secretary shall seek advice from representatives of United States industry, and of educational in-

stitutions and professional and technical societies in the United States, who have experience in the industrial sector, and may establish within the Department an advisory board to provide the Secretary with advice regarding the Department's activities aimed at collaborating with industry in the areas of research, technology development, and technology transfer.

(b) ADVICE TO DEPARTMENTAL LABORATORY DIRECTORS.—The director of each departmental laboratory shall seek advice from representatives of United States industry, and of educational institutions and professional and technical societies in the United States, who have experience in the industrial sector, and may establish an advisory group, to assist such director in—

(1) integrating technology transfer considerations into the planning and performance evaluation of laboratory research and development activities;

(2) evaluating new initiatives proposed by the departmental laboratory and identifying opportunities for collabo-

rative efforts with United States industry based on those initiatives; and

(3) evaluating the long-term direction of ongoing programs at the departmental laboratory from the perspective of United States industry.

(c) USE OF EXISTING BOARDS.—The Secretary or the director of a departmental laboratory may utilize existing advisory boards to achieve the purposes of this section.

SEC. 8. AMENDMENTS TO STEVENSON-WYDLER TECHNOLOGY INNOVATION ACT OF 1980.

Section 12 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a) is amended—

(1) in subsection (a), by inserting after paragraph (2) the following:

"The head of any agency using the authority given it under paragraph (1) to enter into cooperative research and development agreements shall make all reasonable efforts to expedite the negotiation, processing, and approval of such agreements."; and

(2) in subsection (c)(5)—

(A) by amending subparagraph (C)(i) to read as follows:

"(C)(i) Except as provided in subparagraphs (D) and (E), any agency which has contracted with a non-Federal entity to operate a laboratory shall review and approve, request specific modifications to, or disapprove a joint work statement and cooperative research and development agreement that is submitted by the director of such laboratory within 30 days after such submission. In any case in which such an agency disapproves or requests the modification of a joint work statement or cooperative research and development agreement submitted under this section, the agency shall promptly transmit a written explanation of such disapproval or modification to the director of the laboratory concerned. In any case where an agency has requested specific modifications to a joint work statement or cooperative research and development agreement, the agency shall approve or disapprove any resubmission of such joint work statement or cooperative research and development agreement within 15 days

after resubmission. No agreement may be entered into by a Government-owned, contractor-operated laboratory under this section before approval of both the cooperative research and development agreement and a joint work statement.";

(B) by striking clauses (ii), (iv), and (vi) of subparagraph (C);

(C) by redesignating clauses (iii) and (v) as clauses (ii) and (iv), respectively;

(D) by inserting after subparagraph (C)(ii) the following new clause:

"(iii) Any cooperative research and development agreement involving a Federal commitment of $500,000 or more shall contain technical milestones and other appropriate performance goals and evaluation criteria, with an anticipated schedule for meeting such milestones, goals, and criteria. Each sponsoring Federal agency shall conduct appropriate reviews of the work performed within such cooperative research and development agreement to determine whether such

agreements are meeting established milestones, require modification, or warrant termination.";

(E) in subparagraph (C)(iv), as so redesignated by subparagraph (C) of this paragraph—

(i) by striking "under clause (iv) within" and inserting in lieu thereof "of a cooperative research and development agreement under clause (i) within";

(ii) by striking "successive 30-day period" and inserting in lieu thereof "successive 10-day period"; and

(iii) by striking "under clause (iv)." and inserting in lieu thereof "under clause (i).";

(F) by redesignating subparagraph (D) as subparagraph (E); and

(G) by inserting after subparagraph (C) the following new subparagraph:

"(D)(i) A Federal agency may permit the director of any of its Government-owned, con-

tractor-operated laboratories to enter into a cooperative research and development agreement involving a Federal commitment of $1,000,000 or less, whenever that activity is consistent with and furthers an assigned mission of the laboratory, without the specific approval of the agency for the cooperative research and development agreement.

"(ii) A laboratory director who is granted authority by a Federal agency to enter into a cooperative research and development agreement pursuant to clause (i) shall, upon request, provide the Federal agency with an explanation of how the agreement will complement and contribute to the laboratory's missions and activities.".

SEC. 9. NATIONAL TECHNOLOGY PARTNERSHIP AWARD.

(a) ESTABLISHMENT.—The Secretary is authorized to establish a National Technology Partnership Award for presentation to private sector or Federal Government organizations or individuals which have substantially benefited the economic or social well-being of the United States through public sector-private sector collaboration involving tech-

nology development or technology transfer, and which as a consequence are deserving of special recognition.

(b) FUNDING.—The Secretary is authorized to seek and accept gifts from public and private sources to carry out a program to administer the National Technology Partnership Award.

SEC. 10. FEDERAL LABORATORY MISSION EVALUATION AND COORDINATION.

The President, through the National Science and Technology Council, shall—

(1) review on an ongoing basis the missions of, activities conducted at, and scientific, technical, and human resources at, Federal laboratories, with the goals of—

(A) improving the efficiency and effectiveness of the overall Federal laboratory system; and

(B) ensuring that research and development conducted at Federal laboratories is coordinated to maximize its contribution to United States economic growth, environmental pro-

tection, national security, expansion of human knowledge, and other important national goals;

(2) develop and ensure the implementation of a process for assigning missions to the Federal laboratories with the best scientific, technical, and human capabilities for successfully addressing such missions;

(3) develop and ensure implementation, as appropriate, of a cross-cutting program evaluation system for research and development activities at the Federal laboratories including, where appropriate, the establishment of technical milestones and other measures for performance evaluation for major activities at Federal laboratories;

(4) develop guidelines governing the application of intellectual property law for technology transfer activities at Federal laboratories;

(5) determine on an ongoing basis whether specific Federal laboratories should be realigned, consolidated, closed,

or otherwise altered in order to meet the goals stated in paragraph (1);

(6) review the process by which the Federal Government enters into cooperative research and development agreements with companies that are not United States-owned companies (as defined in section 28(j)(2) of the National Institute of Standards and Technology Act (15 U.S.C. 278n(j)(2))); and

(7) prepare, and submit to the Congress within 1 year after the date of enactment of this Act, a plan for carrying out this section.

SEC. 11. POLICY ON CAPITAL PROJECTS AND CONSTRUCTION.

(a) REQUIREMENT OF PRIOR AUTHORIZATION.—(1) No funds are authorized to be appropriated to the Secretary for any substantial construction project, substantial equipment acquisition, or major construction project unless a report on such project or acquisition has been provided to Congress in accordance with subsection (b).

(2) The Secretary may not obligate any funds for any substantial construction project, substantial equipment acquisition, or major construction project unless such project or acquisition has been specifically authorized by statute.

(3) This subsection may not be amended or modified except by specific reference to this subsection.

(b) REPORTS TO CONGRESS.—(1) Within 180 days after the date of the enactment of this Act, the Secretary shall submit to the Congress a report that identifies all construction projects and acquisitions of the Department of Energy described in subsection (a) for which the preliminary design phase is completed but the construction or acquisition is not completed. Such report shall include—

(A) an estimate of the total cost of completion of the construction project or acquisition, itemized by individual activity and by fiscal year; and

(B) an identification of which construction projects or acquisitions have

not been specifically authorized by statute.

The Secretary shall annually update and resubmit the report required by this paragraph, as part of the report required under section 15 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5914).

(2) The Secretary shall, after completion of the preliminary design phase of a major construction project, submit to the Congress a report containing—

(A) an estimate of the total cost of construction of the facility;

(B) an estimate of the time required to complete construction;

(C) an estimate of the annual operating costs of the facility;

(D) the intended useful operating life of the facility; and

(E) an identification of any existing facilities to be closed as a result of the operation of the facility.

(c) DEFINITIONS.—For purposes of this section—

(1) the term "major construction project" means a nonmilitary research and development project whose construction costs are estimated to exceed $100,000,000 over the life of the project;

(2) the term "substantial construction project" means a nonmilitary research and development project whose construction costs are estimated to exceed $10,000,000, but not to exceed $100,000,000, over the life of the project; and

(3) the term "substantial equipment acquisition" means the acquisition of nonmilitary research and development equipment at a cost estimated to exceed $10,000,000 for the entire acquisition.

SEC. 12. COMPETITION REQUIREMENT FOR AWARDS OF FINANCIAL ASSISTANCE.

(a) COMPETITION REQUIREMENT.—The Secretary may not award financial assistance to any person for nonmilitary research, development, or precommercial demonstration activities, including related facility construction,

unless an objective merit review process is used to award the financial assistance.

(b) REQUIREMENT OF SPECIFIC MODIFICATION OF COMPETITION PROVISION.—

(1) IN GENERAL.—A provision of law may not be construed as modifying or superseding subsection (a), or as requiring that financial assistance be awarded by the Secretary in a manner inconsistent with subsection (a), unless such provision of law—

(A) specifically refers to this section;

(B) specifically states that such provision of law modifies or supersedes subsection (a); and

(C) specifically identifies the person to be awarded the financial assistance and states that the financial assistance to be awarded pursuant to such provision of law is being awarded in a manner inconsistent with subsection (a).

(2) NOTICE AND WAIT REQUIREMENT.—No financial assistance may be awarded

pursuant to a provision of law that requires or authorizes the award of the financial assistance in a manner inconsistent with subsection (a) until—

(A) the Secretary submits to the Congress a written notice of the Secretary's intent to award the financial assistance; and

(B) 180 days has elapsed after the date on which the notice is received by the Congress.

(c) DEFINITIONS.—For purposes of this section:

(1) The term "objective merit review process" means a thorough, consistent, and independent examination of requests for financial assistance based on pre-established criteria and scientific and technical merit by persons knowledgeable in the field for which the financial assistance is requested.

(2) The term "financial assistance" means the transfer of funds or property to a recipient or subrecipient to accomplish a public purpose of support or stim-

ulation authorized by Federal law. Such term includes grants, cooperative agreements, and subawards but does not include cooperative research and development agreements as defined in subsection 12(d)(1) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a(d)(1)).

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