Public Law 101-614
101st Congress

An Act

To authorize appropriations for the Earthquake Hazards Reduction Act of 1977, and for other purposes.

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

SHORT TITLE

SECTION 1. This Act may be cited as the "National Earthquake Hazards Reduction Program Reauthorization Act".

FINDINGS

Sec. 2. Section 2 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7701) is amended—
(1) by striking paragraphs (5) and (6) and inserting in lieu thereof the following new paragraphs:
"(5) The geological study of active faults and features can reveal how recently and how frequently major earthquakes have occurred on those faults and how much risk they pose. Such long-term seismic risk assessments are needed in virtually every aspect of earthquake hazards management, whether emergency planning, public regulation, detailed building design, insurance rating, or investment decision.
"(6) The vulnerability of buildings, lifelines, public works, and industrial and emergency facilities can be reduced through proper earthquake resistant design and construction practices. The economy and efficacy of such procedures can be substantially increased through research and development."
(2) by redesignating paragraphs (7) through (10) as paragraphs (8) through (11), respectively; and
(3) by inserting immediately after paragraph (6) the following new paragraph:
"(7) Programs and practices of departments and agencies of the United States are important to the communities they serve; some functions, such as emergency communications and national defense, and lifelines, such as dams, bridges, and public works, must remain in service during and after an earthquake. Federally owned, operated, and influenced structures and lifelines should serve as models for how to reduce and minimize hazards to the community.”.

PURPOSE

Sec. 3. Section 3 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7702) is amended by adding at the end the following: “The objectives of such program shall include—
"(1) the education of the public, including State and local officials, as to earthquake phenomena, the identification of locations and structures which are especially susceptible to
earthquake damage, ways to reduce the adverse consequences of an earthquake, and related matters;

"(2) the development of technologically and economically feasible design and construction methods and procedures to make new and existing structures, in areas of seismic risk, earthquake resistant, giving priority to the development of such methods and procedures for power generating plants, dams, hospitals, schools, public utilities and other lifelines, public safety structures, high occupancy buildings, and other structures which are especially needed in time of disaster;

"(3) the implementation to the greatest extent practicable, in all areas of high or moderate seismic risk, of a system (including personnel, technology, and procedures) for predicting damaging earthquakes and for identifying, evaluating, and accurately characterizing seismic hazards;

"(4) the development, publication, and promotion, in conjunction with State and local officials and professional organizations, of model building codes and other means to encourage consideration of information about seismic risk in making decisions about land-use policy and construction activity;

"(5) the development, in areas of seismic risk, of improved understanding of, and capability with respect to, earthquake-related issues, including methods of mitigating the risks from earthquakes, planning to prevent such risks, disseminating warnings of earthquakes, organization emergency services, and planning for reconstruction and redevelopment after an earthquake;

"(6) the development of ways to increase the use of existing scientific and engineering knowledge to mitigate earthquake hazards; and

"(7) the development of ways to assure the availability of affordable earthquake insurance."

DEFINITIONS

SEC. 4. Section 4 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7703) is amended—

(1) by amending paragraph (2) to read as follows:

"(2) The term 'Program' means the National Earthquake Hazards Reduction Program established under section 5."

(2) by adding at the end the following new paragraphs:

"(6) The term 'lifelines' means public works and utilities, including transportation facilities and infrastructure, oil and gas pipelines, electrical power and communication facilities, and water supply and sewage treatment facilities.

"(7) The term 'Program agencies' means the Federal Emergency Management Agency, the United States Geological Survey, the National Science Foundation, and the National Institute of Standards and Technology."

NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM

SEC. 5. Section 5 of the National Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7704) is amended to read as follows:

"SEC. 5. NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM.

"(a) Establishment.—There is established a National Earthquake Hazards Reduction Program.
(b) Responsibilities of Program Agencies.—

(1) Lead Agency.—The Federal Emergency Management Agency (hereafter in this Act referred to as the 'Agency') shall have the primary responsibility for planning and coordinating the Program. In carrying out this paragraph, the Director of the Agency shall—

(A) prepare, in conjunction with the other Program agencies, an annual budget for the Program to be submitted to the Office of Management and Budget;

(B) ensure that the Program includes the necessary steps to promote the implementation of earthquake hazard reduction measures by Federal, State, and local governments, national standards and model building code organizations, architects and engineers, and others with a role in planning and constructing buildings and lifelines;

(C) prepare, in conjunction with the other Program agencies, a written plan for the Program, which shall include specific tasks and milestones for each Program agency, and which shall be submitted to the Congress and updated at such times as may be required by significant Program events, but in no event less frequently than every 3 years;

(D) prepare, in conjunction with the other Program agencies, a biennial report, to be submitted to the Congress within 90 days after the end of each even-numbered fiscal year, which shall describe the activities and achievements of the Program during the preceding two fiscal years; and

(E) request the assistance of Federal agencies other than the Program agencies, as necessary to assist in carrying out this Act.

The principal official carrying out the responsibilities described in this paragraph shall be at a level no lower than that of Associate Director.

(2) Federal Emergency Management Agency.—

(A) Program Responsibilities.—In addition to the lead agency responsibilities described in paragraph (1), the Director of the Agency shall—

(i) operate a program of grants and technical assistance which would enable States to develop preparedness and response plans, prepare inventories and conduct seismic safety inspections of critical structures and lifelines, update building and zoning codes and ordinances to enhance seismic safety, increase earthquake awareness and education, and encourage the development of multi-State groups for such purposes;

(ii) prepare and execute, in conjunction with the Program agencies, the Department of Education, other Federal agencies, and private sector groups, a comprehensive earthquake education and public awareness program, to include development of materials and their wide dissemination to schools and the general public;

(iii) prepare and disseminate widely, with the assistance of the National Institute of Standards and Technology, other Federal agencies, and private sector groups, information on building codes and practices for structures and lifelines;
“(iv) develop, and coordinate the execution of, Federal interagency plans to respond to an earthquake, with specific plans for each high-risk area which ensure the availability of adequate emergency medical resources, search and rescue personnel and equipment, and emergency broadcast capability;

“(v) develop approaches to combine measures for earthquake hazards reduction with measures for reduction of other natural and technological hazards; and

“(vi) provide response recommendations to communities after an earthquake prediction has been made under paragraph (3)(D).

In addition, the Director of the Agency may enter into cooperative agreements or contracts with States and local jurisdictions to establish demonstration projects on earthquake hazard mitigation, to link earthquake research and mitigation efforts with emergency management programs, or to prepare educational materials for national distribution.

“(B) STATE ASSISTANCE PROGRAM CRITERIA.—In order to qualify for assistance under subparagraph (A)(i), a State must—

“(i) demonstrate that the assistance will result in enhanced seismic safety in the State;

“(ii) provide a share of the costs of the activities for which assistance is being given, in accordance with subparagraph (C); and

“(iii) meet such other requirements as the Director of the Agency shall prescribe.

“(C) NON-FEDERAL COST SHARING.—

“(i) In the case of any State which has received, before October 1, 1990, a grant from the Agency for activities under this Act which included a requirement for cost sharing by matching such grant, any grant obtained from the Agency for activities under subparagraph (A)(i) after such date shall not include a requirement for cost sharing in an amount greater than 50 percent of the cost of the project for which the grant is made.

“(ii) In the case of any State which has not received, before October 1, 1990, a grant from the Agency for activities under this Act which included a requirement for cost sharing by matching such grant, any grant obtained from the Agency for activities under subparagraph (A)(i) after such date—

“(I) shall not include a requirement for cost sharing for the first fiscal year of such a grant;

“(II) shall not include a requirement for cost sharing in an amount greater than 25 percent of the cost of the project for which the grant is made for the second fiscal year of such grant, and any cost sharing requirement may be satisfied through in-kind contributions;

“(III) shall not include a requirement for cost sharing in an amount greater than 35 percent of the cost of the project for which the grant is made for the third fiscal year of such grant, and any cost
sharing requirement may be satisfied through in-kind contributions; and

"(IV) shall not include a requirement for cost sharing in an amount greater than 50 percent of the cost of the project for which the grant is made for the fourth and subsequent fiscal years of such grant.

"(3) UNITED STATES GEOLOGICAL SURVEY.—The United States Geological Survey shall conduct research necessary to characterize and identify earthquake hazards, assess earthquake risks, monitor seismic activity, and improve earthquake predictions. In carrying out this paragraph, the Director of the United States Geological Survey shall—

"(A) conduct a systematic assessment of the seismic risks in each region of the Nation prone to earthquakes, including, where appropriate, the establishment and operation of intensive monitoring projects on hazardous faults, seismic microzonation studies in urban and other developed areas where earthquake risk is determined to be significant, and engineering seismology studies;

"(B) work with officials of State and local governments to ensure that they are knowledgeable about the specific seismic risks in their areas;

"(C) develop standard procedures, in consultation with the Agency, for issuing earthquake predictions, including aftershock advisories;

"(D) issue when necessary, and notify the Director of the Agency of, an earthquake prediction or other earthquake advisory, which may be evaluated by the National Earthquake Prediction Evaluation Council, which shall be exempt from the requirements of section 10(a)(2) of the Federal Advisory Committee Act when meeting for such purposes;

"(E) establish, using existing facilities, a Center for the International Exchange of Earthquake Information which shall—

"(i) promote the exchange of information on earthquake research and earthquake preparedness between the United States and other nations;

"(ii) maintain a library containing selected reports, research papers, and data produced through the Program;

"(iii) answer requests from other nations for information on United States earthquake research and earthquake preparedness programs; and

"(iv) direct foreign requests to the agency involved in the Program which is best able to respond to the request; and

"(F) operate a National Seismic Network;

"(G) support regional seismic networks, which shall complement the National Seismic Network.

"(4) NATIONAL SCIENCE FOUNDATION.—The National Science Foundation shall be responsible for funding research on earth sciences to improve the understanding of the causes and behavior of earthquakes, on earthquake engineering, and on human response to earthquakes. In carrying out this paragraph, the Director of the National Science Foundation shall—
“(A) encourage prompt dissemination of significant findings, sharing of data, samples, physical collections, and other supporting materials, and development of intellectual property so research results can be used by appropriate organizations to mitigate earthquake damage;

“(B) in addition to supporting individual investigators, support university research consortia and centers for research in geosciences and in earthquake engineering;

“(C) work closely with the United States Geological Survey to identify geographic regions of national concern that should be the focus of targeted solicitations for earthquake-related research proposals;

“(D) emphasize, in earthquake engineering research, development of economically feasible methods to retrofit existing buildings and to protect lifelines to mitigate earthquake damage; and

“(E) support research that studies the political, economic, and social factors that influence the implementation of hazard reduction measures.

“(5) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—The National Institute of Standards and Technology shall be responsible for carrying out research and development to improve building codes and standards and practices for structures and lifelines. In carrying out this paragraph, the Director of the National Institute of Standards and Technology shall—

“(A) work closely with national standards and model building code organizations, in conjunction with the Agency, to promote the implementation of research results;

“(B) promote better building practices among architects and engineers; and

“(C) work closely with national standards organizations to develop seismic safety standards and practices for new and existing lifelines.”.

OFFICE OF SCIENCE AND TECHNOLOGY POLICY REPORT

Sec. 6. Section 6 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7705) is amended to read as follows:

“Sec. 6. OFFICE OF SCIENCE AND TECHNOLOGY POLICY REPORT.

“The Director of the Office of Science and Technology Policy shall, within 3 months after the date of the enactment of the National Earthquake Hazards Reduction Program Reauthorization Act, report to the Committee on Commerce, Science, and Transportation of the Senate and to the Committee on Science, Space, and Technology and the Committee on Interior and Insular Affairs of the House of Representatives with respect to how the Office of Science and Technology Policy can play a role in interagency coordination, planning, and operation of the Program.”.

ADVISORY COMMITTEE

Sec. 7. The Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7701 et seq.) is amended—

(1) by redesignating section 7 as section 12; and

(2) by inserting immediately after section 6 the following new section:
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SEC. 7. ADVISORY COMMITTEE.

There is established a National Earthquake Hazards Reduction Program Advisory Committee (hereafter in this Act referred to as the 'Advisory Committee'), which shall advise the Program agencies on planning and implementing the Program. The Director of the Agency shall, in consultation with the directors of the Program agencies, determine the number of members on the Advisory Committee and the duration of their terms, and appoint the Chairman and Members of the Advisory Committee. The Advisory Committee shall have balanced representation of State and local governments, the design professions, the research community, business and industry, and the general public. The Advisory Committee shall meet at the call of the Chairman, but in no event less often than every 6 months. The Advisory Committee shall submit a written report directly to the Congress, without review by the Office of Management and Budget or any other agency, by January 31 of each calendar year beginning after the date of enactment of the National Earthquake Hazards Reduction Program Reauthorization Act, which shall describe any recommendations the Advisory Committee has made to the Program agencies during the preceding year. Members of the Advisory Committee shall serve without compensation but may receive reimbursement for expenses. All expenses of the Advisory Committee shall be borne by the Agency. The Advisory Committee shall expire September 30, 1993.

SEC. 8. SEISMIC STANDARDS.

(a) AMENDMENT.—The Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7701 et seq.), as amended by section 7 of this Act, is further amended by inserting immediately after section 7 the following new section:

"SEC. 8. SEISMIC STANDARDS.

(a) BUILDINGS.—

(1) ADOPTION OF STANDARDS.—The President shall adopt, not later than December 1, 1994, standards for assessing and enhancing the seismic safety of existing buildings constructed for or leased by the Federal Government which were designed and constructed without adequate seismic design and construction standards. Such standards shall be developed by the Interagency Committee on Seismic Safety in Construction, whose chairman is the Director of the National Institute of Standards and Technology or his designee, and which shall work in consultation with appropriate private sector organizations.

(2) REPORT TO CONGRESS.—The President shall report to the Congress, not later than December 1, 1994, on how the standards adopted under paragraph (1) could be applied with respect to buildings—

(A) for which Federal financial assistance has been obtained through grants, loans, financing guarantees, or loan or mortgage insurance programs; or

(B) the structural safety of which is regulated by a Federal agency.

(3) REGULATIONS.—The President shall ensure the issuance, before February 1, 1993, by all Federal agencies of final regulations required by section 4(b) of Executive Order numbered 12699, issued January 5, 1990."
"(b) Lifelines.—The Director of the Agency, in consultation with the Director of the National Institute of Standards and Technology, shall submit to the Congress, not later than June 30, 1992, a plan, including precise timetables and budget estimates, for developing and adopting, in consultation with appropriate private sector organizations, design and construction standards for lifelines. The plan shall include recommendations of ways Federal regulatory authority could be used to expedite the implementation of such standards."

42 USC 7705b note.

(b) Report to Congress.—The Comptroller General shall, not later than 18 months after the date of enactment of this Act, report to the Committee on Commerce, Science, and Transportation of the Senate and to the Committee on Interior and Insular Affairs and the Committee on Science, Space, and Technology of the House of Representatives on the vulnerability of buildings owned and leased by the Federal Government and on the efforts of Federal agencies to improve the seismic resistance of the buildings they own or lease. For each such agency, the Comptroller General shall enumerate the number of buildings owned or leased by the agency, the seriousness of the seismic risk to such buildings, and the value of the buildings at risk. The Comptroller General shall tabulate the expenditures each such agency has devoted to reducing earthquake damage and estimate the total expenditure necessary to address the problem adequately.

ACCEPTANCE OF GIFTS

Sec. 9. The Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7701 et seq.), as amended by sections 7 and 8 of this Act, is further amended by inserting immediately after section 8 the following new section:

42 USC 7705c. "SEC. 9. ACCEPTANCE OF GIFTS.

(a) Authority.—In furtherance of the purposes of this Act, the Director of the Agency may accept and use bequests, gifts, or donations of services, money, or property, notwithstanding section 3679 of the Revised Statutes (31 U.S.C. 1342).

(b) Criteria.—The Director of the Agency shall establish by regulation criteria for determining whether to accept bequests, gifts, or donations of services, money, or property. Such criteria shall take into consideration whether the acceptance of the bequest, gift, or donation would reflect unfavorably on the Director's ability to carry out his responsibilities in a fair and objective manner, or would compromise the integrity of, or the appearance of the integrity of, the Program or any official involved in administering the Program."

NON-FEDERAL COST SHARING FOR SUPPLEMENTAL FUNDS

Sec. 10. The Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7701 et seq.), as amended by sections 7, 8, and 9 of this Act, is further amended by inserting immediately after section 9 the following new section:

42 USC 7705d. "SEC. 10. NON-FEDERAL COST SHARING FOR SUPPLEMENTAL FUNDS.

A grant under this Act to a State from the Agency that is made with funds appropriated under the Fiscal Year 1990 Dire Emergency Supplemental to Meet the Needs of Natural Disasters of National
Significance (Public Law 101-130; 103 Stat. 775) shall not include a requirement for cost sharing in an amount greater than 25 percent of the cost of the project for which the grant is made, and any cost sharing requirement may be satisfied through in-kind contributions.

INVESTIGATIONS

SEC. 11. (a) AMENDMENT.—The Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7701 et seq.), as amended by sections 7 through 10 of this Act, is further amended by inserting after section 10 the following new section:

"SEC. 11. POST-EARTHQUAKE INVESTIGATIONS PROGRAM.

"There is established within the United States Geological Survey a post-earthquake investigations program, the purpose of which is to investigate major earthquakes, so as to learn lessons which can be applied to reduce the loss of lives and property in future earthquakes. The United States Geological Survey, in consultation with each Program agency, shall organize investigations to study the implications of the earthquake in the areas of responsibility of each Program agency. The investigations shall begin as rapidly as possible and may be conducted by grantees and contractors. The Program agencies shall ensure that the results of investigations are disseminated widely. The Director of the Survey is authorized to utilize earthquake expertise from the Agency, the National Science Foundation, the National Institute of Standards and Technology, other Federal agencies, and private contractors, on a reimbursable basis, in the conduct of such earthquake investigations. At a minimum, investigations under this section shall include—

"(1) analysis by the National Science Foundation and the United States Geological Survey of the causes of the earthquake and the nature of the resulting ground motion;

"(2) analysis by the National Science Foundation and the National Institute of Standards and Technology of the behavior of structures and lifelines, both those that were damaged and those that were undamaged; and

"(3) analysis by each of the Program agencies of the effectiveness of the earthquake hazards mitigation programs and actions relating to its area of responsibility under the Program, and how those programs and actions could be strengthened."

(b) REPORT TO CONGRESS.—The Director of the Federal Emergency Management Agency in consultation with the other agencies of the National Earthquake Hazards Reduction Program shall, not later than one year after the date of enactment of this Act, report to the Committee on Commerce, Science, and Transportation and the Committee on Appropriations of the Senate and to the Committee on Interior and Insular Affairs, the Committee on Science, Space, and Technology, and the Committee on Appropriations of the House of Representatives on possible options for funding a program for post-earthquake investigations. Such report, at a minimum, shall consider funding such a program either by setting aside a percentage of disaster relief funds provided by the Federal Emergency Management Agency after a major earthquake or by a revolving fund. The report shall include a recommendation on how the funding for such investigations should be allocated among the other Program agencies.
AUTHORIZATION OF APPROPRIATIONS

Sec. 12. Section 12 of the Earthquake Hazards Reduction Act of 1977, as so redesignated by section 7(1) of this Act, is amended—

(1) in subsection (a)(7)—

(A) by striking "the provisions of sections 5 and 6 of";
(B) by striking "and $5,798,000" and inserting in lieu thereof "$8,798,000"; and
(C) by inserting "; $14,750,000 for the fiscal year ending September 30, 1991; $19,000,000 for the fiscal year ending September 30, 1992; and $22,000,000 for the fiscal year ending September 30, 1993" immediately before the period at the end;

(2) in subsection (b)—

(A) by striking "and $43,283,000" and inserting in lieu thereof "$55,283,000"; and
(B) by inserting ", of which $8,000,000 shall be for earthquake investigations under section 11; $50,000,000 for the fiscal year ending September 30, 1991; $54,500,000 for the fiscal year ending September 30, 1992; and $62,500,000 for the fiscal year ending September 30, 1993" immediately before the period at the end;

(3) in subsection (c)—

(A) by striking "and $35,454,000" and inserting in lieu thereof "$38,454,000"; and
(B) by adding at the end the following: "Of the amounts authorized for Engineering under section 101(d)(1)(B) of the National Science Foundation Authorization Act of 1988, $24,000,000 is authorized for carrying out this Act for the fiscal year ending September 30, 1991, and of the amounts authorized for Geosciences under section 101(d)(1)(D) of the National Science Foundation Authorization Act of 1988, $13,000,000 is authorized for carrying out this Act for the fiscal year ending September 30, 1991. Of the amounts authorized for Research and Related Activities under section 101(e)(1) of the National Science Foundation Authorization Act of 1988, $29,000,000 is authorized for engineering research under this Act, and $14,750,000 is authorized for geosciences research under this Act, for the fiscal year ending September 30, 1991. Of the amounts authorized for Research and Related Activities under section 101(f)(1) of the National Science Foundation Authorization Act of 1988, $34,500,000 is authorized for engineering research under this Act, and $17,500,000 is authorized for geosciences research under this Act, for the fiscal year ending September 30, 1992. Of the amounts authorized for Research and Related Activities under section 101(f)(1) of the National Science Foundation Authorization Act of 1988, $34,500,000 is authorized for engineering research under this Act, and $17,500,000 is authorized for geosciences research under this Act, for the fiscal year ending September 30, 1993.";

(4) in subsection (d)—

(A) by striking "NATIONAL BUREAU OF STANDARDS" and inserting in lieu thereof "NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY";
(B) by striking "Bureau" and inserting in lieu thereof "National Institute of Standards and Technology";
(C) by striking "and $525,000" and inserting in lieu thereof "$2,525,000"; and
(D) by inserting "; $1,000,000 for the fiscal year ending September 30, 1991; $3,000,000 for the fiscal year ending September 30, 1992; and $4,750,000 for the fiscal year
ending September 30, 1993" immediately before the period at the end; and
(5) by adding at the end the following new subsection:

“(f) AVAILABILITY OF FUNDS.—Funds appropriated for fiscal years 1991, 1992, and 1993 pursuant to this section shall remain available until expended.”.

BUY AMERICAN REQUIREMENT

SEC. 13. (a) DETERMINATION BY DIRECTOR.—If the Director of the Federal Emergency Management Agency, with the concurrence of the Secretary of Commerce and the United States Trade Representative, determines that the public interest so requires, the Agency is authorized to award to a domestic firm a contract made pursuant to the issuance of any grant made under this Act that, under the use of competitive procedures, would be awarded to a foreign firm, if—

(1) the final product of the domestic firm will be completely assembled in the United States;
(2) when completely assembled, not less than 51 percent of the final product of the domestic firm will be domestically produced; and
(3) the difference between the bids submitted by the foreign and domestic firms is not more than 6 percent.

In determining under this subsection whether the public interest so requires, the Agency shall take into account United States international obligations and trade relations.

(b) LIMITED APPLICATION.—This section shall not apply to the extent to which—

(1) such applicability would not be in the public interest;
(2) compelling national security considerations require otherwise; or
(3) the United States Trade Representatives determines that such an award would be in violation of the General Agreement on Tariffs and Trade or an international agreement to which the United States is a party.

(c) LIMITATION.—This section shall apply only to contracts made related to the issuance of any grant made under this Act for which—

(1) amounts are authorized by this Act (including the amendments made by this Act) to be made available; and
(2) solicitations for bids are issued after the date of the enactment of this Act.

(d) REPORT TO CONGRESS.—The Agency shall report to the Congress on contracts covered under this section and entered into with foreign entities in fiscal years 1990 and 1991 and shall report to the Congress on the number of contracts that meet the requirements of subsection (a) but which are determined by the United States Trade Representatives to be in violation of the General Agreement on Tariffs and Trade or an international agreement to which the United States is a party. The Agency shall also report to the Congress on the number of contracts covered under this Act (including the amendments made by this Act) and awarded based upon the parameters of this section.
(e) DEFINITIONS.—For purposes of this section—
(1) the term "domestic firm" means a business entity that is incorporated in the United States and that conducts business operations in the United States; and
(2) the term "foreign firm" means a business entity not described in paragraph (2).

**CATASTROPHIC EARTHQUAKE IMPACT STUDIES**

Sec. 14. (a) STUDY OF INDIRECT ECONOMIC LOSSES.—Within 12 months after the date of enactment of this Act, the Director of the Federal Emergency Management Agency shall submit, to the Committee on Science, Space, and Technology, the Committee on Interior and Insular Affairs, and the Committee on Banking, Finance and Urban Affairs of the House of Representatives, and to the Committee on Commerce, Science and Transportation and the Committee on Banking, Housing, and Urban Affairs of the Senate, a report on the results of a study on the impact and repercussions of a catastrophic earthquake on local, regional, and national economies. The Director of the Federal Emergency Management Agency shall appoint, in consultation with the Department of the Treasury, a panel of experts in relevant fields and activities to undertake such study. In particular, the study shall evaluate the repercussions and indirect economic impact of such an earthquake on—

1. financial markets;
2. the national banking system;
3. the insurance industry; and
4. the national energy distribution network;
and shall include an estimate of the ability of current disaster assistance efforts and insurance coverage to allow recovery from the economic losses caused by a catastrophic earthquake.

(b) STUDY ON IMPROVING EARTHQUAKE MITIGATION.—Within 12 months after the date of enactment of this Act, the Director of the Federal Emergency Management Agency shall submit, to the Committee on Science, Space, and Technology, the Committee on Interior and Insular Affairs, and the Committee on Banking, Finance and Urban Affairs of the House of Representatives, and to the Committee on Commerce, Science, and Transportation and the Committee on Banking, Housing, and Urban Affairs of the Senate, a report on the results of a study on the adequacy of preparation and response capabilities for reducing and recovering from losses caused by a catastrophic earthquake. The Director of the Federal Emergency Management Agency shall appoint, in consultation with the United States Geological Survey, the National Institute of Standards and Technology, and the National Science Foundation, a panel of experts in relevant fields and activities to undertake such study. The study required under subsection shall

1. identify impediments to the effective implementation of Federal, State, and local programs of earthquake hazard mitigation, including an analysis of the appropriate roles for Federal, State, and local governments and the private sector in preparing for and responding to the economic and social consequences of earthquakes; and
2. consider the effectiveness, and efficiencies of alternative ways for Federal, State, and local governments to reduce the
economic impact of earthquakes, including earthquake hazard mitigation, disaster assistance, earthquake insurance for homeowners and small businesses, and earthquake reinsurance for general commercial liabilities.

Approved November 16, 1990.

LEGISLATIVE HISTORY—S. 2789:

SENATE REPORTS: No. 101-446 (Comm. on Commerce, Science, and Transportation).

CONGRESSIONAL RECORD, Vol. 136 (1990):

Oct. 19, considered and passed Senate.
Oct. 20, considered and passed House.