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108TH CONGRESS, 1st Session | HOUSE OF REPRESENTATIVES | REPT. 108–246, Part 1

NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM REAUTHORIZATION ACT OF 2003

AUGUST 14, 2003.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. BOEHLERT, from the Committee on Science, submitted the following

R E P O R T

[To accompany H.R. 2608]

[Including cost estimate of the Congressional Budget Office]

The Committee on Science, to whom was referred the bill (H.R. 2608) to reauthorize the National Earthquake Hazards Reduction Program, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

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19–006

I. AMENDMENT

The amendment is as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the "National Earthquake Hazards Reduction Program Reauthorization Act of 2003".

SEC. 2. DEFINITIONS.

Section 4 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7701 et seq.) is amended by adding at the end the following new paragraphs:

"(8) The term 'Interagency Coordinating Committee' means the Interagency Coordinating Committee on Earthquake Hazards Reduction established under section 5(a).

"(9) The term 'Advisory Committee' means the Advisory Committee established under section 5(a)(5).".

SEC. 3. NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM.

Section 5 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7704(b)) is amended—

(1) by amending subsection (a) to read as follows:

"(a) ESTABLISHMENT.—

"(1) IN GENERAL.—There is established the National Earthquake Hazards Reduction Program.

"(2) PROGRAM ACTIVITIES.—The activities of the Program shall be designed to—

"(A) develop effective measures for earthquake hazards reduction;

"(B) promote the adoption of earthquake hazards reduction measures by Federal, State, and local governments, national standards and model code organizations, architects and engineers, building owners, and others with a role in planning and constructing buildings, structures, and lifelines through—

"(i) grants, contracts, cooperative agreements, and technical assistance;

"(ii) development of standards, guidelines, and voluntary consensus codes for earthquake hazards reduction for buildings, structures, and lifelines; and

"(iii) development and maintenance of a repository of information, including technical data, on seismic risk and hazards reduction; and

"(C) improve the understanding of earthquakes and their effects on communities, buildings, structures, and lifelines, through interdisciplinary research that involves engineering, natural sciences, and social, economic, and decisions sciences.

"(3) INTERAGENCY COORDINATING COMMITTEE ON EARTHQUAKE HAZARDS REDUCTION.—

"(A) IN GENERAL.—There is established an Interagency Coordinating Committee on Earthquake Hazards Reduction chaired by the Director of the National Institute of Standards and Technology (referred to in this subsection as the 'Director').

"(B) MEMBERSHIP.—The committee shall be composed of the directors of—

"(i) the Federal Emergency Management Agency;

"(ii) the United States Geological Survey;

"(iii) the National Science Foundation;

"(iv) the Office of Science and Technology Policy; and

"(v) the Office of Management and Budget.

"(C) MEETINGS.—The Committee shall meet not less than 3 times a year at the call of the Director.

"(D) PURPOSE AND DUTIES.—The Interagency Coordinating Committee shall oversee the planning, management, and coordination of the Program. The Interagency Coordinating Committee shall—

"(i) develop, not later than 6 months after the date of enactment of this Act, and update periodically—

"(I) a strategic plan that establishes goals and priorities for the Program activities described under subsection (a)(2); and

"(II) a detailed management plan to implement such strategic plan; and

"(ii) develop a coordinated interagency budget for the Program that will ensure appropriate balance among the Program activities described

under subsection (a)(2), and submit such budget to the Director of the Office of Management and Budget at the time designated by that office for agencies to submit annual budgets.

"(4) ANNUAL REPORT.—The Interagency Coordinating Committee shall transmit, at the time of the President's budget request to Congress, an annual report to the Committee on Science and the Committee on Resources of the House of Representatives, and the Committee on Commerce, Science, and Transportation of the Senate. Such report shall include—

"(A) the Program budget for the current fiscal year for each agency that participates in the Program, and for each major goal established for the Program activities under subparagraph (3)(A);

"(B) the proposed Program budget for the next fiscal year for each agency that participates in the Program, and for each major goal established for the Program activities under subparagraph (3)(A);

"(C) a description of the activities and results of the Program during the previous year, including an assessment of the effectiveness of the Program in furthering the goals established in the strategic plan under (3)(A);

"(D) a description of the extent to which the Program has incorporated the recommendations of the Advisory Committee;

"(E) a description of activities, including budgets for the current fiscal year and proposed budgets for the next fiscal year, that are carried out by Program agencies and contribute to the Program, but are not included in the Program; and

"(F) a description of the activities, including budgets for the current fiscal year and proposed budgets for the following fiscal year, related to the grant program carried out under subsection (b)(2)(A)(i).

"(5) ADVISORY COMMITTEE.—

"(A) IN GENERAL.—The Director shall establish an Advisory Committee on Earthquake Hazards Reduction consisting of non-Federal members, including representatives of research and academic institutions, industry standards development organizations, State and local government, and financial communities who are qualified to provide advice on earthquake hazards reduction. The recommendations of the Advisory Committee shall be considered by Federal agencies in implementing the Program.

"(B) ASSESSMENT.—The Advisory Committee shall assess—

"(i) trends and developments in the science and engineering of earthquake hazards reduction;

"(ii) effectiveness of the Program in carrying out the activities under (a)(2);

"(iii) the need to revise the Program; and

"(iv) the management, coordination, implementation, and activities of the Program.

"(C) REPORT.—Not later than 1 year after the date of enactment of this Act and at least once every 2 years thereafter, the Advisory Committee shall report to the Director on its findings of the assessment carried out under subparagraph (B) and its recommendations for ways to improve the Program. In developing recommendations, the Committee shall consider the recommendations of the United States Geological Survey Scientific Earthquake Studies Advisory Committee.

"(D) FEDERAL ADVISORY COMMITTEE ACT APPLICATION.—Section 14 of the Federal Advisory Committee Act (5 App. U.S.C. 14) shall not apply to the Advisory Committee.";

(2) in subsection (b)—

(A) in paragraph (1)—

(i) by striking "Federal Emergency Management Agency" and all that follows through "of the Agency" and inserting "National Institute of Standards and Technology shall have the primary responsibility for planning and coordinating the Program. In carrying out this paragraph, the Director of the Institute";

(ii) by striking subparagraphs (B) and (C) and redesignating subparagraphs (D) and (E) as subparagraphs (C) and (D), respectively;

(iii) by inserting after subparagraph (A) the following:

"(B) support the development of performance-based seismic engineering tools, and work with appropriate groups to promote the commercial application of such tools, through earthquake-related building codes, standards, and construction practices;"; and

(iv) by striking "The principal official carrying out the responsibilities described in this paragraph shall be at a level no lower than that of Associate Director."; and

(v) in subparagraph (D), as redesignated by clause (ii), by striking "National Science Foundation, the National Institutes of Standards and Technology" and inserting "Federal Emergency Management Agency, the National Science Foundation";

(B) in paragraph (2)(A)—

(i) by striking "In addition to the lead" and all that follows through "Agency" and inserting "The Director of the Federal Emergency Management Agency (in this Act referred to as the 'Agency')"; and

(ii) by amending clause (iii) to read as follows:

"(iii) assist the National Institute of Standards and Technology, other Federal agencies, and private sector groups in the preparation and wide dissemination of building codes and practices for structures and lifelines, and aid in the development of performance based codes for buildings, structures, and lifelines that are cost effective and affordable;";

(C) in paragraph (3)—

(i) by inserting "and other activities" after "shall conduct research";

(ii) in subparagraphs (C) and (D), by striking "the Agency" both places it appears and inserting "the Director of the Federal Emergency Management Agency and the Director of the National Institute of Standards and Technology";

(iii) in subparagraph (E), by striking "establish, using existing facilities, a Center for the International Exchange of Earthquake Information" and inserting "operate, using the National Earthquake Information Center, a forum for the international exchange of earthquake information";

(iv) in subparagraph (F), by striking "Network" and inserting "System"; and

(v) by inserting after subparagraph (H) the following new subparagraphs:

"(I) work with other Program agencies to coordinate Program activities with similar eathquake hazards reduction efforts in other countries, to ensure that the Program benefits from relevant information and advances in those countries; and

"(J) maintain suitable seismic hazard maps in support of building codes for structures and lifelines, including additional maps needed for performance based design approaches.";

(D) in paragraph (4)—

(i) by redesignating subparagraphs (D), (E), and (F) as subparagraphs (E), (F), and (H), respectively;

(ii) by inserting after subparagraph (C) the following:

"(D) support research that improves the safety and performance of buildings, structures, and lifeline systems using large-scale experimental and computational facilities;";

(iii) in subparagraph (F) (as so redesignated), by striking "; and" and inserting a semicolon; and

(iv) by inserting after subparagraph (F) (as so redesignated) the following:

"(G) include to the maximum extent practicable diverse institutions, including Historically Black Colleges and Universities and those serving large proportions of Hispanics, Native Americans, Asian-Pacific Americans, and other underrepresented populations; and"; and

(E) in paragraph (5), by striking "The National" and inserting "In addition to the lead agency responsibilities described under paragraph (1), the National"; and

(3) in subsection (c)(1), by striking "Agency" and inserting "Interagency Coordinating Committee".

SEC. 4. AUTHORIZATION OF APPROPRIATIONS.

(a) Section 12 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7706) is amended—

(1) in subsection (a), by adding after paragraph (7) the following new paragraph:

"(8) There are authorized to be appropriated to the Federal Emergency Management Agency for carrying out this Act $19,000,000 for fiscal year 2004; $21,000,000 for fiscal year 2005; and $23,000,000 for fiscal year 2006. Of such amounts appropriated, not less than $3,000,000 shall be made available each such fiscal year for supporting the development of performance-based, cost-effective, and affordable codes for buildings, structures, and lifelines.";

(2) in subsection (b), by adding at the end the following: "There are authorized to be appropriated to the United States Geological Survey for carrying out this Act $80,000,000 for fiscal year 2004, of which not less than $30,000,000 shall be made available for completion of the Advanced National Seismic Research and Monitoring System established under section 13; $83,500,000 for fiscal year 2005, of which not less than $30,000,000 shall be made available for completion of the Advanced National Seismic Research and Monitoring System established under section 13; $93,000,000 for fiscal year 2006, of which not less than $36,000,000 shall be made available for completion of the Advanced National Seismic Research and Monitoring System established under section 13; such sums as may be necessary for fiscal year 2007, of which not less than $36,000,000 shall be made available for completion of the Advanced National Seismic Research and Monitoring System established under section 13; and such sums as may be necessary for fiscal year 2008, of which not less than $36,000,000 shall be made available for completion of the Advanced National Seismic Research and Monitoring System established under section 13.";

(3) in subsection (c), by adding at the end the following: "There are authorized to be appropriated to the National Science Foundation for carrying out this Act $39,000,000 for fiscal year 2004; $44,000,000 for fiscal year 2005; and $47,500,000 for fiscal year 2006."; and

(4) in subsection (d) by adding at the end the following: "There are authorized to be appropriated to the National Institute of Standards and Technology for carrying out this Act $8,000,000 for fiscal year 2004; $9,600,000 for fiscal year 2005; and $12,500,000 for fiscal year 2006. Of such amounts appropriated, not less than $2,000,000 shall be made available each such fiscal year for supporting the development of performance-based, cost-effective, and affordable codes for buildings, structures, and lifelines.".

(b) Section 13 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7707) is amended by striking subsection (c).

(c) Section 14(b) of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7708(b)) is amended—

(1) in paragraph (3) by striking "and" at the end; and

(2) by striking paragraph (4) and inserting the following:

"(4) $8,000,000 for fiscal year 2004;

"(5) $20,000,000 for fiscal year 2005, all of which shall be available for operations and maintenance; and

"(6) $20,000,000 for fiscal year 2006, all of which shall be available for operations and maintenance.".

II. Purpose of the Bill

The purpose of the bill is to reauthorize the National Earthquake Hazards Reduction Program (NEHRP), to authorize appropriations for this multi-agency program at the Federal Emergency Management Agency (FEMA), U.S. Geological Survey (USGS), National Science Foundation (NSF), and National Institute of Standards and Technology (NIST), and to improve the coordination of the Program among these agencies.

III. Background and Need for the Legislation

Damaging earthquakes are inevitable, if infrequent. Most states face at least some danger from earthquakes, and total annualized damages in the United States are estimated to be about $4.4 billion in direct financial losses (due to such costs as repair expenses, inventory loss, and business interruption). The 1994 Northridge earthquake in California (magnitude 6.7) was the most costly in U.S. history, causing over $40 billion in damage.

Congress created NEHRP in 1977 (P.L. 95–124) in response to growing concerns about the threat of damaging earthquakes. The Program was originally focused on research into geotechnical and structural engineering and earthquake prediction. Over time, researchers recognized that earthquake prediction was an unrealistic goal, and that focus was significantly de-emphasized within

NEHRP, while efforts were expanded to include activities such as seismic retrofitting and rehabilitation, risk assessment, public education and outreach, and code development.

Currently the agency responsibilities within NEHRP include:

FEMA—overall coordination of the Program, education and outreach, and implementation of research results;

USGS—basic and applied earth science and seismic research;

NSF—basic research in geoscience, engineering, economic, and social aspects of earthquakes;

NIST—problem-focused earthquake engineering research and development programs aimed at improving building design codes and construction standards.

The Program has achieved significant success since inception. Loss of life and injuries sustained from earthquakes have decreased substantially, seismic risk assessment capabilities have improved significantly, and technological advances in areas such as performance-based engineering, information technology, and sensing and imaging have provided valuable knowledge and tools for mitigating earthquake hazards.

New knowledge and tools, however, have not translated into decreased overall vulnerability. End-user adoption of NEHRP innovations has been incremental and slower than expected. The cost of rehabilitating existing structures to improve earthquake resistance is often too high, as is the cost of engineering new structures to minimize seismic risk. The private sector has not had adequate incentives to take steps to address these challenges.

This slow implementation of new mitigation technologies, combined with continued widespread development in areas of high seismic risk, has resulted in a rapid and steady increase in societal vulnerability to a major earthquake event. Potential loss estimates of a future large earthquake in a major U.S. urban area now approach $200 billion.

IV. Summary of Hearings

On May 8, 2003, the Research Subcommittee of the House Science Committee held a hearing to examine the past, present, and future of NEHRP. The Committee heard testimony from the Administrator of the Federal Insurance Mitigation Administration (FIMA), a division of the Emergency Preparedness and Response Directorate (formerly FEMA) of the Department of Homeland Security and from industrial and academic experts on earthquake hazards mitigation, civil engineering, and seismology. The Committee also received written testimony from USGS, NSF, and NIST. At the hearing, FIMA presented to the Subcommittee the NEHRP Five-Year Strategic Plan for 2001 through 2005, Expanding and Using Knowledge to Reduce Earthquake Losses (FEMA 382). Witnesses discussed the status of NEHRP, the appropriate level of funding for the Program, and priorities among the Program's various research and mitigation activities. They also discussed shortcomings in NEHRP strategic planning and coordination and offered suggestions for how to foster a more unified effort to reduce earthquake hazards. Finally, they discussed the need to accelerate the implementation of knowledge and tools developed from earthquake-related research.

V. Committee Actions

On June 26, 2003, Science Committee Research Subcommittee Chairman Nick Smith of Michigan and Representative Brian Baird of Washington introduced H.R. 2608, the National Earthquake Hazards Reduction Program Reauthorization Act of 2003. The bill was referred to the Committee on Science and the Committee on Resources, Subcommittee on Energy and Mineral Resources.

The Full Committee on Science met on Tuesday, July 22, 2003, to consider the bill.

• An amendment was offered by Research Subcommittee Chairman Smith which made several small revisions to the bill, including requiring the annual report to Congress to include information about FEMA's State assistance grant program, adding language further clarifying the agencies' NEHRP responsibilities, and setting aside specified amounts of the authorized funds at NIST and FEMA for supporting the development of performance-based, cost-effective, and affordable codes for buildings, structures, and lifelines. The amendment was adopted by a voice vote.

• An amendment was offered by Mr. Hall of Texas on behalf of Ms. Jackson-Lee of Texas to ensure that NSF's activities under NEHRP will include the Nation's colleges and universities serving under-represented populations. The amendment was adopted by a voice vote.

• An amendment was offered by Mr. Moore of Kansas to add a new title to the bill establishing a research and mitigation program on hurricane, tornado, and related hazards. A motion to withdraw the amendment by Mr. Moore was agreed to by unanimous consent.

Mr. Hall moved that the Committee favorably report the bill, H.R. 2608, as amended, to the House with the recommendation that the bill as amended do pass, and that the staff be instructed to make technical and conforming changes to the bill as amended and prepare the legislative report and that the Chairman take all necessary steps to bring the bill before the House for consideration. With a quorum present, the motion was agreed to by a voice vote.

VI. Summary of Major Provisions of the Bill

• Reauthorizes the National Earthquake Hazards Reduction Program (NEHRP) for fiscal years (FYs) 2004 through 2006 to coordinate multi-agency efforts to understand earthquake impact and reduce the hazards associated with earthquakes. Revises Program activities to (1) develop effective measures for earthquake hazards reduction; (2) promote the adoption of these measures by Federal, State, and local governments, national standards and model code organizations, architects and engineers, building owners, and other relevant stakeholders; and (3) improve the understanding of earthquakes and their effects on buildings, structures, and lifelines.

• Establishes an Interagency Coordinating Committee (ICC), and designates the Director of NIST as the Chair of the Committee, transferring leadership of the Program from FEMA to NIST. Requires the Committee to develop, and update periodically, both a strategic plan and a management plan for implementation of the strategic plan. Also requires the Committee to develop a single, coordinated, interagency budget for the Program to be submitted to

the Office of Management and Budget each year prior to the deadline for agency budget submissions.

• Authorizes appropriations for FEMA of $19,000,000 for FY 2004, $21,000,000 for FY 2005, and $23,000,000 for FY 2006. Authorizes appropriations for NIST of $8,000,000 for FY 2004, $9,600,000 for FY 2005, and $12,500,000 for FY 2006. Authorizes appropriations for USGS of $80,000,000 for FY 2004, $83,500,000 for FY 2005, and $93,000,000 for FY 2006. Authorizes appropriations for base NEHRP activities at NSF of $39,000,000 for FY 2004, $44,000,000 for FY 2005, and $47,500,000 for FY 2006. Authorizes appropriations for the Network for Earthquake Engineering Simulation (NEES), a Major Research Equipment and Facilities Construction project within NSF, of $8,000,000 for FY 2004, and for Operation and Maintenance of NEES of $20,000,000 for FY 2005, and $20,000,000 for FY 2006. Total authorization of appropriations for all Program agencies through fiscal year 2006 is $528 million.

• Directs the ICC to transmit to Congress an annual report, to include the NEHRP budget for the current and upcoming fiscal years for each NEHRP agency and a description of the activities of the Program during the previous year.

• Directs the Director of NIST to establish an external advisory committee for NEHRP on earthquake hazards reduction consisting of non-federal members representing research and academic institutions, industry, standards development organizations, State and local government, and financial communities. Requires the Advisory Committee to report its findings and recommendations.

VII. Section-by-Section Analysis (by Title and Section)

Section 1. Short title

"National Earthquake Hazards Reduction Program Reauthorization Act of 2003."

Section 2. Definitions

Defines terms used in the text.

Section 3. National Earthquake Hazards Reduction Program (NEHRP)

Reauthorizes NEHRP to coordinate multi-agency efforts to understand earthquake impact and reduce the hazards associated with earthquakes. Requires the Program to develop effective measures for earthquake hazards reduction; promote the adoption of these measures by Federal, State, and local governments, national standards and model code organizations, architects and engineers, building owners, and other relevant stakeholders; and improve the understanding of earthquakes and their effects on buildings, structures, and lifelines.

Establishes an Interagency Coordinating Committee, composed of the directors of NIST, FEMA, USGS, NSF, the Office of Science and Technology Policy, and the Office of Management and Budget. Designates the Director of NIST as the Chair of the Committee, and tasks the Committee with oversight, planning, management, and coordination of the Program. Requires the Committee to develop, and update periodically, a strategic plan establishing the

goals and priorities for the Program, and a management plan for implementation of the strategic plan. Also requires the Committee to develop a single, coordinated, interagency budget for the Program to be submitted to the Office of Management and Budget each year prior to the deadline for agency budget submissions.

Directs the Committee to transmit to Congress an annual report on the Program at the time of the President's budget request. Requires the report to include: the Program budget for the current and upcoming fiscal years for each NEHRP agency; a description of the activities of the Program during the previous year, including the effectiveness of the Program in furthering the goals established in the strategic plan; a description of the extent to which the Program has incorporated the recommendations of the Advisory Committee established in this Section; and a description of the activities and budget for the FEMA state assistance grant program.

Requires the Director of NIST to establish an external advisory committee for NEHRP on earthquake hazards reduction consisting of non-federal members representing research and academic institutions, industry, standards development organizations, State and local government, and financial communities. Tasks the advisory committee with assessing: trends and developments in earthquake hazards reduction science and engineering and the effectiveness of the Program, including the management, coordination, and implementation of the Program. Requires the advisory committee to report its findings and recommendations to the Director of NIST one year after enactment, and at least once every two years thereafter.

Section 4. Authorization of appropriations

Authorizes appropriations for the four NEHRP Agencies: NIST, FEMA, USGS, and NSF. Funding is specifically authorized for two large projects to study earthquakes and monitor earthquake activity: the Network for Earthquake Engineering Simulation (NEES) at NSF and the Advanced National Seismic System (ANSS) at USGS. Total funding authorized for fiscal years 2004–2006 is $528.1 million. In addition, funding is also authorized for ANSS for fiscal years 2007 and 2008 ($36 million each year).

TABLE 1.—AUTHORIZATION LEVELS IN MILLIONS OF DOLLARS

Agency/program	FY 2004 (authorized)		FY 2005 (authorized)		FY 2006 (authorized)	
FEMA	19.0		21.0		23.0	
NIST	8.0		9.6		12.5	
NSF Total	47.0		64.0		67.5	
NSF Base		39.0		44.0		47.5
NSF NEES		8.0		20.0		20.0
USGS Total	80.0		83.5		93.0	
USGS Base		50.0		53.5		57.0
USGS ANSS		30.0		30.0		36.0
Total	154.0		178.1		196.0	

VIII. Committee Views

GENERAL

The Committee on Science believes that, since its establishment in 1977, NEHRP has produced a wealth of useful information, and

that it has substantially increased our ability to protect lives and property from the threats of catastrophic earthquakes. However, the Committee also believes that the Program's potential has been limited by the inability of NEHRP agencies to create synergy through coordinated efforts—a necessary part of any truly successful interagency program. It is because of these concerns that the Committee is modifying the structure of NEHRP. The Committee believes that, while NEHRP has been a successful undertaking, a great deal of room for improvement exists. The Committee also believes that, if NEHRP funding is directed to the appropriate priorities and implemented as a true interagency program, taxpayer funds allocated to this Program can be leveraged many times over.

STRATEGIC PLAN

At the May 8, 2003 Research Subcommittee hearing, The National Earthquake Hazards Reduction Program: Past, Present, and Future, FEMA presented to the Subcommittee the long-awaited NEHRP Strategic Plan, Expanding and Using Knowledge to Reduce Earthquake Losses. The plan articulates the mission and goals of NEHRP, provides a framework for coordinating activities, and establishes priority areas for the future of the Program. A key finding set forth in the plan is the recognition that the Program needs increased focus on accelerating the implementation of available earthquake loss-reduction practices and policies, such as development and adoption of performance-based building codes for areas of high seismic risk. The Committee strongly agrees with this finding, supports the prioritized goals of the Program presented in the plan, and has worked to support this shift of focus in this legislation. However, the Committee notes that, beyond the aforementioned shift of focus toward implementation of research results, the Program activities that have been redefined in Section 3 of the legislation are not intended to convey a need for implementation of sweeping reforms in the Program, but rather simply to update these Program activities to better reflect NEHRP's current operational structure.

NEHRP LEADERSHIP TRANSITION

NIST is fully capable of carrying out the lead agency responsibilities as the Chair of the Interagency Coordinating Committee, but NIST will have difficulty fulfilling its duties under sections 5(b)(1) and (5) of the Earthquake Hazards Reduction Act, as amended, unless it receives appropriations at the level authorized by this bill.

The Committee understands that a successful transition to the new management structure and updated Program responsibilities will require additional efforts from all agencies and stakeholders, and the Committee intends to follow through with close oversight of NEHRP activities, focus, and direction to see that the provisions of this legislation are implemented as smoothly as possible. To that end, the Committee plans to work closely with all members of the NEHRP Interagency Coordinating Committee, the Office of Science and Technology Policy, the Office of Management and Budget, the new NEHRP external Advisory Committee, and members of the Commerce, Justice, State and the Judiciary Appropriations Subcommittee to ensure that NIST receives the support necessary for

assuming lead agency responsibilities, as well as its expanded role in the Program.

The Committee also wants to emphasize that it believes FEMA still has a very important, and even indispensable, role to play in helping NEHRP succeed. To that end, the Committee expects FEMA to remain fully engaged with other NEHRP agencies and relevant stakeholders in implementing the goals of the Strategic Plan. The Committee also expects FEMA to actively assist NIST in the transition to assuming lead agency responsibilities.

INTERAGENCY COORDINATING COMMITTEE (ICC)

An ad hoc interagency committee has long been the coordinating mechanism for NEHRP, though it appears to have been largely non-functional in recent years. The Committee believes that for NEHRP to reach its potential as a true working interagency program, it is critical for the ICC to be more active as the budget planning and coordinating mechanism for the Program, and therefore has included a provision to establish the ICC in statute. For the ICC to be a success, it will require increased participation by not only the NEHRP agencies, but also the Office of Science and Technology Policy and the Office of Management and Budget.

The Committee also applauds the recent establishment of a Research Subcommittee within the ICC to coordinate research activities across NEHRP agencies, and expects this subcommittee to be active and provide valuable contributions to the ICC.

EARTHQUAKE INSURANCE

One of the objectives of NEHRP specified in law is to develop ways to assure the availability of affordable earthquake insurance. The Committee is of the understanding that the Program has done little toward implementing this objective. The Committee recognizes that insurance alone does not usually reduce losses to society as a whole, but rather spreads risk. However, it is conceivable that incentives for loss reduction may be incorporated into earthquake insurance policies, and the Committee encourages FEMA to examine relevant data associated with the earthquake insurance market, including factors that may affect owners' decisions on whether to purchase earthquake insurance, the potential of public insurance subsidies to influence the rate of purchase of earthquake insurance, and the potential of such subsidies to influence construction behavior and code adoption.

PLANNING AND BUDGET COORDINATION

As stated several times throughout this report, the Committee believes it is a top priority of this legislation to modify NEHRP to function more like a true interagency program. An important aspect of this is coordinated budget planning among the NEHRP agencies, the Office of Science and Technology Policy, and the Office of Management and Budget (OMB), and inclusion of this NEHRP interagency budget in the President's annual budget request to Congress. The Committee attempted to address this concern the last time the Program was authorized by requiring FEMA to lead NEHRP agencies in submitting a coordinated report to OMB at the time of the annual agency budget submission to OMB.

At the May 8 Research Subcommittee hearing, FEMA stated they had not been submitting this report. More disturbing than the failure to submit the report were several indications that NEHRP agencies had not cooperated on any level in preparing a Program budget. In keeping with the above-stated concerns regarding coordination and Program reporting, the Committee emphasizes the importance of the ICC meeting the reporting requirement under Section 3 of this legislation.

FEMA STATE ASSISTANCE GRANTS

One of the primary responsibilities of FEMA within NEHRP is to operate a program of grants and technical assistance to help 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." On May 2, 2003, the Committee learned that the FY 2004 budget request for this "Emergency Management Performance Grants" program was proposed to be administered through the Department of Homeland Security's Office of Domestic Preparedness, as part of a department-wide grant consolidation effort. While the Committee understands that many earthquake hazard reduction measures also serve to reduce vulnerability to other hazards, it is concerned that if the grants are administered through the Office of Domestic Preparedness, little or no effort will be made to ensure an appropriate amount of funds are directed toward legitimate earthquake hazards reduction measures. To address this concern, the Committee has required in Section 3 of the legislation that the ICC include in its annual report a description of the activities and budget for this grant program.

INFORMATION DISSEMINATION

The Committee is disappointed with the current presentation of NEHRP information on the Internet, and advises the ICC to examine ways this presentation can be improved to maximize the profile of the Program and the ease with which information can be obtained online by relevant stakeholders. Further, the Committee recognizes that current and future information technology applications can provide the Program with a low-cost means of communicating this information and encourages the NEHRP agencies to take full advantage of these applications. In addition, the Committee encourages the agencies to exploit information technology applications to further NEHRP goals, as is currently being done in the George Brown, Jr. Network for Earthquake Engineering Simulation and is envisioned in the Advanced National Seismic System.

EXTERNAL ADVISORY COMMITTEE

In soliciting input from private sector groups and individuals on how to strengthen NEHRP, perhaps the most common recommendation was that Congress establish a non-federal Advisory Committee for the Program. The Committee agrees with this recommendation and has called for the establishment of such a Com-

mittee in Section 3 of the legislation, tasking the Committee to assess and report on (1) trends and developments in the science and engineering of earthquake hazards reduction; (2) the effectiveness of NEHRP in carrying out Program activities; (3) the need to revise the Program; and (4) the management, coordination, implementation and activities of the Program.

The Committee intends for the external Advisory Committee to have the flexibility to report to Congress on any issues related to the Program it desires. The Committee also notes that the membership categories explicitly called for in the legislation are by no means exclusive, and the Advisory Committee may consist of representatives from any additional variety of interests the Director of NIST deems pertinent.

CONTRIBUTIONS OF NON-NEHRP ACTIVITIES

As stated within the requirements of the ICC's annual report in Section 3 of the legislation, the Committee advises the ICC to document its interaction with non-Program elements carried out by NEHRP agencies that may contribute to the goals of the Program. Most obvious among these is Earthscope, an NSF Major Research Equipment and Facilities Construction project.

NEHRP REPORTING REQUIREMENTS

The Committee notes its frustration associated with the unnecessary delay in publication of several reports required of the Program in law, most importantly, the strategic plan required by Public Law 101–614 (42 USC 7704 (b)(1)(C)). At a February 1999 Science Committee hearing on NEHRP Reauthorization, FEMA committed to delivering the plan to Congress by April of that year. It was not until over four years later that the plan was delivered, in the third year of the five-year strategy. Similar delays have been the norm with other NEHRP reporting requirements, such as the biennial report required by Public Law 101–614 (USC 42 7704 (b)(1)(D)), the report on at-risk populations required by Public Law 106–503 (42 USC 7701), and the report required by Executive Order 12941 pertaining to seismic safety in federally owned and leased buildings (42 USC 7705 (b), section 3). As of the filing of this Committee Report, Congress has still not received the report required by Executive Order 12941, which was due December 1, 2001. The Committee believes it is important that FEMA complete this report so that further assessments can be made toward addressing seismic risk in existing federally owned and leased buildings.

The Committee believes timely publication of these reports is important for ensuring policy-makers, agency participants, and other relevant stakeholders have all necessary materials for informed decision-making. The Committee expects the ICC to work to see that these reporting delays do not continue to be a problem in the future.

AUTHORIZATION OF APPROPRIATIONS

USGS—The legislation authorizes $80, $83.5, and $93 million for fiscal years 2004 through 2006, respectively. Within those amounts, $30, $30, and $36 million, respectively, are allocated to the Advanced National Seismic System (ANSS). In addition, the Com-

mittee has authorized $36 million in each of fiscal years 2007 and 2008 for ANSS. ANSS was established by the last NEHRP authorization bill, but has only been funded at approximately only 10 percent of its authorized level each of the last four fiscal years. The earthquake hazards reduction community has identified funding for completion of ANSS as a top priority for NEHRP. The Committee concurs with this assessment, and urges all those involved in the budget process, including the Department of Interior, Office of Management and Budget, and relevant House and Senate Appropriations Committees, to work to see that this recommendation for funding is fulfilled and ANSS can come to fruition.

NSF—The legislation authorizes funding for base NEHRP activities at NSF of $39 million for FY 2004, $44 million for FY 2005, and $47.5 million for FY 2006. Additionally, funds are authorized for funding the Operation and Maintenance of the Network for Earthquake Engineering Simulation (NEES). Within funds for base activities, the Committee defers to NSF to appropriately divide total funds among NEHRP research needs in the Engineering, Geosciences, and Social, Behavioral, and Economic Sciences Directorate. It is also intended that funding for NEES grand research challenges be provided out of the base activities funding.

FEMA—The legislation authorizes appropriations for FEMA of $19 million for FY 2004, $21 million for FY 2005, and $23 million for FY 2006. Within those amounts, the Committee has directed FEMA to direct a minimum of $3 million for supporting the development of performance-based, cost-effective, and affordable codes and standards for buildings, structures, and lifelines. The need for these performance-based codes and standards has been identified by both the NEHRP Strategic Plan and the earthquake engineering research community as a top priority for the future.

NIST—The legislation authorizes appropriations for NIST of $8 million for FY 2004, $9 million for FY 2005, and $12.5 million for FY 2006. Within those amounts, the Committee has directed NIST to fund not less than $2 million for supporting the development of performance-based, cost-effective, and affordable codes and standards for buildings, structures, and lifelines. The Committee strongly believes that NIST's previously token role in NEHRP (approximately 2 percent of the total Program funding) needs to be significantly enhanced, as NIST has a great deal to contribute to the goals of the Program. The Committee recognizes that securing these appropriations will not come easy, and calls upon the Office of Management and Budget, the Department of Commerce, and the relevant House and Senate Appropriations Committees to take measures to see that this funding recommendation is realized.

IX. Cost Estimate

A cost estimate and comparison prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act of 1974 has been timely submitted to the Committee on Science prior to the filing of this report and is included in Section X of this report pursuant to House Rule XIII, clause 3(c)(3).

H.R. 2608 does not contain new budget authority, credit authority, or changes in revenues or tax expenditures. Assuming that the sums authorized under the bill are appropriated, H.R. 2608 does authorize additional discretionary spending, as described in the

Congressional Budget Office report on the bill, which is contained in Section X of this report.

X. Congressional Budget Office Cost Estimate

U.S. Congress,
Congressional Budget Office,
Washington, DC, July 25, 2003.

Hon. Sherwood L. Boehlert,
Chairman, Committee on Science,
House of Representatives, Washington, DC.

Dear Mr. Chairman: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 2608, the National Earthquake Hazards Reduction Program Reauthorization Act of 2003.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Julie Middleton.

Sincerely,

Robert A. Sunshine
(For Douglas Holtz-Eakin, Director).

Enclosure.

H.R. 2608—National Earthquake Hazards Reduction Program Reauthorization Act of 2003

Summary: CBO estimates that H.R. 2608 would authorize the appropriation of $725 million over the 2004–2008 period for programs aimed at reducing earthquake hazards. Assuming appropriation of that amount, CBO estimates that implementing the bill would cost $691 million over the 2004–2008 period. Enacting H.R. 2608 would not affect direct spending or revenues.

H.R. 2608 would authorize the appropriation of $482 million over the 2004–2006 period for the Federal Emergency Management Agency (FEMA), the U.S. Geological Survey (USGS), the National Science Foundation (NSF), and the National Institute of Standards and Technology (NIST) to carry out provisions of the Earthquake Hazards Reduction Act of 1977. The bill also would authorize the appropriation of such sums as are necessary to the U.S. Geological Survey for fiscal years 2007 and 2008 to implement that act. In addition, the bill would authorize the appropriation of $48 million over the 2004–2006 period for the NSF's Network for Earthquake Engineering Simulation.

H.R. 2608 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments. State and local governments might benefit from grants to adopt measures for reducing earthquake hazards.

Estimated cost to the Federal Government: The estimated budgetary impact of H.R. 2608 is shown in the following table. The costs of this legislation fall within budget functions 250 (general science, space, and technology), 300 (natural resources and environment), 370 (commerce and housing credit), and 450 (community and regional development).

For this estimate, CBO assumes that the authorized and estimated amounts will be appropriated for each fiscal year. Outlay estimates are based on historical spending patterns for existing and similar programs. CBO estimated the authorization level for the

USGS in 2007 and 2008 by adjusting the level specified in the bill for that agency in 2006 for anticipated inflation.

	By fiscal year, in millions of dollars—					
	2003	2004	2005	2006	2007	2008
SPENDING SUBJECT TO APPROPRIATION						
Spending Under Current Law:						
Budget Authority [1]	111	0	0	0	0	0
Estimated Outlays	96	46	16	6	2	0
Proposed Changes:						
FEMA:						
Authorization Level	0	19	21	23	0	0
Estimated Outlays	0	9	14	18	12	7
USGS:						
Estimated Authorization Level	0	80	84	93	96	99
Estimated Outlays	0	69	83	92	96	99
NSF:						
Authorization Level	0	47	64	68	0	0
Estimated Outlays	0	10	35	53	46	18
NIST:						
Authorization Level	0	8	10	13	0	0
Estimated Outlays	0	6	9	12	3	0
Total Changes:						
Authorization Level	0	154	179	197	96	99
Estimated Outlays	0	94	141	175	157	124
Spending Under H.R. 2608:						
Estimated Authorization Level	111	154	179	197	96	99
Estimated Outlays	96	140	157	181	159	124

[1] The 2003 level is the amount appropriated for that year for FEMA, USGS, NSF, and NIST activities related to earthquake hazards reduction.

Intergovernmental and private-sector impact: H.R. 2608 contains no intergovernmental or private-sector mandates as defined in UMRA and would impose no costs on state, local, or tribal governments. State and local governments might benefit from grants to adopt measures for reducing earthquake hazards.

Estimate prepared by: Federal Costs: Julie Middleton; Impact on State, Local, and Tribal Governments: Melissa Merrell; and Impact on the Private Sector: Cecil McPherson.

Estimate approved by: Peter H. Fontaine, Deputy Assistant Director for Budget Analysis.

XI. Compliance With Public Law 104–4 (Unfunded Mandates)

H.R. 2608 contains no unfunded mandates.

XII. Committee Oversight Findings and Recommendations

The Committee on Science's oversight findings and recommendations are reflected in the body of this report.

XIII. Statement on General Performance Goals and Objectives

Pursuant to clause (3)(c) of House rule XIII, the goals of H.R. 2608 are to reauthorize the National Earthquake Hazards Reduction Program (NEHRP); to authorize appropriations for FEMA, NIST, USGS, and NSF to carry out the Program; to make NIST the lead agency for the Program; to establish an interagency committee to oversee the planning, management, and coordination of the Program; and to establish an external Advisory Committee on earthquake hazards reduction.

XIV. Constitutional Authority Statement

Article I, section 8 of the Constitution of the United States grants Congress the authority to enact H.R. 2608.

XV. Federal Advisory Committee Statement

The functions of the advisory committee required by H.R. 2608 could not be performed by one or more agencies or by enlarging the mandate of another existing advisory committee.

XVI. Congressional Accountability Act

The Committee finds that H.R. 2608 does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act (Public Law 104–1).

XVII. Statement on Preemption of State, Local, or Tribal Law

This bill is not intended to preempt any state, local, or tribal law.

XVIII. Changes in Existing Law Made by the Bill, as Reported

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

EARTHQUAKE HAZARDS REDUCTION ACT OF 1977

* * * * * * *

SEC. 4. DEFINITIONS.

As used in this Act, unless the context otherwise requires:

(1) * * *

* * * * * * *

(8) The term "Interagency Coordinating Committee" means the Interagency Coordinating Committee on Earthquake Hazards Reduction established under section 5(a).

(9) The term "Advisory Committee" means the Advisory Committee established under section 5(a)(5).

SEC. 5. NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM.

[(a) Establishment.—There is established a National Earthquake Hazards Reduction Program.]

(a) Establishment.—

(1) In general.—There is established the National Earthquake Hazards Reduction Program.

(2) Program activities.—The activities of the Program shall be designed to—

(A) develop effective measures for earthquake hazards reduction;

(B) promote the adoption of earthquake hazards reduction measures by Federal, State, and local governments, national standards and model code organizations, architects and engineers, building owners, and others with a role

in planning and constructing buildings, structures, and lifelines through—

(i) grants, contracts, cooperative agreements, and technical assistance;

(ii) development of standards, guidelines, and voluntary consensus codes for earthquake hazards reduction for buildings, structures, and lifelines; and

(iii) development and maintenance of a repository of information, including technical data, on seismic risk and hazards reduction; and

(C) improve the understanding of earthquakes and their effects on communities, buildings, structures, and lifelines, through interdisciplinary research that involves engineering, natural sciences, and social, economic, and decisions sciences.

(3) INTERAGENCY COORDINATING COMMITTEE ON EARTHQUAKE HAZARDS REDUCTION.—

(A) IN GENERAL.—There is established an Interagency Coordinating Committee on Earthquake Hazards Reduction chaired by the Director of the National Institute of Standards and Technology (referred to in this subsection as the "Director").

(B) MEMBERSHIP.—The committee shall be composed of the directors of—

(i) the Federal Emergency Management Agency;

(ii) the United States Geological Survey;

(iii) the National Science Foundation;

(iv) the Office of Science and Technology Policy; and

(v) the Office of Management and Budget.

(C) MEETINGS.—The Committee shall meet not less than 3 times a year at the call of the Director.

(D) PURPOSE AND DUTIES.—The Interagency Coordinating Committee shall oversee the planning, management, and coordination of the Program. The Interagency Coordinating Committee shall—

(i) develop, not later than 6 months after the date of enactment of this Act, and update periodically—

(I) a strategic plan that establishes goals and priorities for the Program activities described under subsection (a)(2); and

(II) a detailed management plan to implement such strategic plan; and

(ii) develop a coordinated interagency budget for the Program that will ensure appropriate balance among the Program activities described under subsection (a)(2), and submit such budget to the Director of the Office of Management and Budget at the time designated by that office for agencies to submit annual budgets.

(4) ANNUAL REPORT.—The Interagency Coordinating Committee shall transmit, at the time of the President's budget request to Congress, an annual report to the Committee on Science and the Committee on Resources of the House of Representatives, and the Committee on Commerce, Science, and Transportation of the Senate. Such report shall include—

(A) the Program budget for the current fiscal year for each agency that participates in the Program, and for each major goal established for the Program activities under subparagraph (3)(A);

(B) the proposed Program budget for the next fiscal year for each agency that participates in the Program, and for each major goal established for the Program activities under subparagraph (3)(A);

(C) a description of the activities and results of the Program during the previous year, including an assessment of the effectiveness of the Program in furthering the goals established in the strategic plan under (3)(A);

(D) a description of the extent to which the Program has incorporated the recommendations of the Advisory Committee;

(E) a description of activities, including budgets for the current fiscal year and proposed budgets for the next fiscal year, that are carried out by Program agencies and contribute to the Program, but are not included in the Program; and

(F) a description of the activities, including budgets for the current fiscal year and proposed budgets for the following fiscal year, related to the grant program carried out under subsection (b)(2)(A)(i).

(5) ADVISORY COMMITTEE.—

(A) IN GENERAL.—The Director shall establish an Advisory Committee on Earthquake Hazards Reduction consisting of non-Federal members, including representatives of research and academic institutions, industry standards development organizations, State and local government, and financial communities who are qualified to provide advice on earthquake hazards reduction. The recommendations of the Advisory Committee shall be considered by Federal agencies in implementing the Program.

(B) ASSESSMENT.—The Advisory Committee shall assess—

(i) trends and developments in the science and engineering of earthquake hazards reduction;

(ii) effectiveness of the Program in carrying out the activities under (a)(2);

(iii) the need to revise the Program; and

(iv) the management, coordination, implementation, and activities of the Program.

(C) REPORT.—Not later than 1 year after the date of enactment of this Act and at least once every 2 years thereafter, the Advisory Committee shall report to the Director on its findings of the assessment carried out under subparagraph (B) and its recommendations for ways to improve the Program. In developing recommendations, the Committee shall consider the recommendations of the United States Geological Survey Scientific Earthquake Studies Advisory Committee.

(D) FEDERAL ADVISORY COMMITTEE ACT APPLICATION.—Section 14 of the Federal Advisory Committee Act (5 App. U.S.C. 14) shall not apply to the Advisory Committee.

(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] *National Institute of Standards and Technology shall have the primary responsibility for planning and coordinating the Program. In carrying out this paragraph, the Director of the Institute* shall—

(A) * * *

[(B) 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;

[(C) 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;]

(B) support the development of performance-based seismic engineering tools, and work with appropriate groups to promote the commercial application of such tools, through earthquake-related building codes, standards, and construction practices;

[(D)] *(C)* request the assistance of Federal agencies other than the Program agencies, as necessary to assist in carrying out this Act; and

[(E)] *(D)* work with the [National Science Foundation, the National Institute of Standards and Technology] *Federal Emergency Management Agency, the National Science Foundation*, and the United States Geological Survey, to develop a comprehensive plan for earthquake engineering research to effectively use existing testing facilities and laboratories (existing at the time of the development of the plan), upgrade facilities and equipment as needed, and integrate new, innovative testing approaches to the research infrastructure in a systematic manner.

[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] *The Director of the Federal Emergency Management Agency (in this Act referred to as the "Agency")* shall—

(i) * * *

* * * * * * *

[(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;]

(iii) assist the National Institute of Standards and Technology, other Federal agencies, and private sector groups in the preparation and wide dissemination of building codes and practices for structures and lifelines, and aid in the development of performance based codes for buildings, structures, and lifelines that are cost effective and affordable;

* * * * * * *

(3) UNITED STATES GEOLOGICAL SURVEY.—The United States Geological Survey shall conduct research *and other activities* 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) * * *

* * * * * * *

(C) develop standard procedures, in consultation with [the Agency] *the Director of the Federal Emergency Management Agency and the Director of the National Institute of Standards and Technology*, for issuing earthquake predictions, including aftershock advisories;

(D) issue when necessary, and notify the Director of [the Agency] *the Director of the Federal Emergency Management Agency and the Director of the National Institute of Standards and Technology* 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] *operate, using the National Earthquake Information Center, a forum for the international exchange of earthquake information* which shall—

(i) * * *

* * * * * * *

(F) operate a National Seismic [Network] *System*;

* * * * * * *

(I) work with other Program agencies to coordinate Program activities with similar eathquake hazards reduction efforts in other countries, to ensure that the Program benefits from relevant information and advances in those countries; and

(J) maintain suitable seismic hazard maps in support of building codes for structures and lifelines, including additional maps needed for performance based design approaches.

(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 be-

havior 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) * * *

* * * * * * *

(D) support research that improves the safety and performance of buildings, structures, and lifeline systems using large-scale experimental and computational facilities;

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

[(E)] *(F)* support research that studies the political, economic, and social factors that influence the implementation of hazard reduction measures; [and]

(G) include to the maximum extent practicable diverse institutions, including Historically Black Colleges and Universities and those serving large proportions of Hispanics, Native Americans, Asian-Pacific Americans, and other underrepresented populations; and

[(F)] *(H)* develop, in conjunction with the Federal Emergency Management Agency, the National Institute of Standards and Technology, and the United States Geological Survey, a comprehensive plan for earthquake engineering research to effectively use existing testing facilities and laboratories (in existence at the time of the development of the plan), upgrade facilities and equipment as needed, and integrate new, innovative testing approaches to the research infrastructure in a systematic manner.

(5) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—[The National] *In addition to the lead agency responsibilities described under paragraph (1), 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) * * *

* * * * * * *

(c) BUDGET COORDINATION.—

(1) GUIDANCE.—The [Agency] *Interagency Coordinating Committee* shall each year provide guidance to the other Program agencies concerning the preparation of requests for appropriations for activities related to the Program, and shall prepare, in conjunction with the other Program agencies, an annual Program budget to be submitted to the Office of Management and Budget.

* * * * * * *

SEC. 12. AUTHORIZATION OF APPROPRIATIONS.

(a)(1) * * *

* * * * * * *

(8) There are authorized to be appropriated to the Federal Emergency Management Agency for carrying out this Act $19,000,000 for

fiscal year 2004; $21,000,000 for fiscal year 2005; and $23,000,000 for fiscal year 2006. Of such amounts appropriated, not less than $3,000,000 shall be made available each such fiscal year for supporting the development of performance-based, cost-effective, and affordable codes for buildings, structures, and lifelines.

(b) GEOLOGICAL SURVEY.—There are authorized to be appropriated to the Secretary of the Interior for purposes for carrying out, through the Director of the United States Geological Survey, the responsibilities that may be assigned to the Director under this Act not to exceed $27,500,000 for the fiscal year ending September 30, 1978; not to exceed $35,000,000 for the fiscal year ending September 30, 1979; not to exceed $40,000,000 for the fiscal year ending September 30, 1980; $32,484,000 for the fiscal year ending September 30, 1981; $34,425,000 for the fiscal year ending September 30, 1982; $31,843,000 for the fiscal year ending September 30, 1983; $35,524,000 for the fiscal year ending September 30, 1984; $37,300,200 for the fiscal year ending September 30, 1985 $35,578,000 for the fiscal year ending September 30, 1986; $37,179,000 for the fiscal year ending September 30, 1987; $38,540,000 for the fiscal year ending September 30, 1988; $41,819,000 for the fiscal year ending September 30, 1989; $55,283,000 for the fiscal year ending September 30, 1990, 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; $62,500,000 for the fiscal year ending September 30, 1993; $49,200,000 for the fiscal year ending September 30, 1995; $50,676,000 for the fiscal year ending September 30, 1996; $52,565,000 for the fiscal year ending September 30, 1998, of which $3,800,000 shall be used for the Global Seismic Network operated by the Agency; and $54,052,000 for the fiscal year ending September 30, 1999, of which $3,800,000 shall be used for the Global Seismic Network operated by the Agency. There are authorized to be appropriated to the Secretary of the Interior for purposes of carrying out, through the Director of the United States Geological Survey, the responsibilities that may be assigned to the Director under this Act $48,360,000 for fiscal year 2001, of which $3,500,000 is for the Global Seismic Network and $100,000 is for the Scientific Earthquake Studies Advisory Committee established under section 210 of the Earthquake Hazards Reduction Authorization Act of 2000; $50,415,000 for fiscal year 2002, of which $3,600,000 is for the Global Seismic Network and $100,000 is for the Scientific Earthquake Studies Advisory Committee; and $52,558,000 for fiscal year 2003, of which $3,700,000 is for the Global Seismic Network and $100,000 is for the Scientific Earthquake Studies Advisory Committee. Of the amounts authorized to be appropriated under this subsection, at least—

(1) * * *

* * * * * * *

shall be used for carrying out a competitive, peer-reviewed program under which the Director, in close coordination with and as a complement to related activities of the United States Geological Survey, awards grants to, or enters into cooperative agreements with, State and local governments and persons or entities from the academic community and the private sector. *There are authorized to*

be appropriated to the United States Geological Survey for carrying out this Act $80,000,000 for fiscal year 2004, of which not less than $30,000,000 shall be made available for completion of the Advanced National Seismic Research and Monitoring System established under section 13; $83,500,000 for fiscal year 2005, of which not less than $30,000,000 shall be made available for completion of the Advanced National Seismic Research and Monitoring System established under section 13; $93,000,000 for fiscal year 2006, of which not less than $36,000,000 shall be made available for completion of the Advanced National Seismic Research and Monitoring System established under section 13; such sums as may be necessary for fiscal year 2007, of which not less than $36,000,000 shall be made available for completion of the Advanced National Seismic Research and Monitoring System established under section 13; and such sums as may be necessary for fiscal year 2008, of which not less than $36,000,000 shall be made available for completion of the Advanced National Seismic Research and Monitoring System established under section 13.

(c) NATIONAL SCIENCE FOUNDATION.—To enable the Foundation to carry out responsibilities that may be assigned to it under this Act, there are authorized to be appropriated to the Foundation not to exceed $27,500,000 for the fiscal year ending September 30, 1978; not to exceed $35,000,000 for the fiscal year ending September 30, 1979; not to exceed $40,000,000 for the first year ending September 30, 1980; $26,600,000 for the fiscal year ending September 30, 1981; $27,150,000 for the fiscal year ending September 30 1982; $25,000,000 for the fiscal year ending September 30, 1983; $25,800,000 for the fiscal year ending September 30, 1984; $28,665,000 for the fiscal year ending September 30, 1985 $27,760,000 for the fiscal year ending September 30, 1986; $29,009,000 for the fiscal year ending September 30, 1987; $28,235,000 for the fiscal year ending September 30, 1988; $31,634,000 for the fiscal year ending September 30, 1989; $38,454,000 for the fiscal year ending September 30, 1990. 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, 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. There are authorized to be appropriated, out of funds otherwise authorized to be appropriated to the National Science Foundation: (1) $16,200,000 for engineering research and $10,900,000 for geosciences research for the fiscal year ending

September 30, 1995, (2) $16,686,000 for engineering research and $11,227,000 for geosciences research for the fiscal year ending September 30, 1996, (3) $18,450,000 for engineering research and $11,920,000 for geosciences research for the fiscal year ending September 30, 1998, (4) $19,000,000 for engineering research and $12,280,000 for geosciences research for the fiscal year ending September 30, 1999. There are authorized to be appropriated to the National Science Foundation $19,000,000 for engineering research and $11,900,000 for geosciences research for fiscal year 2001; $19,808,000 for engineering research and $12,406,000 for geosciences research for fiscal year 2002; and $20,650,000 for engineering research and $12,933,000 for geosciences research for fiscal year 2003. *There are authorized to be appropriated to the National Science Foundation for carrying out this Act $39,000,000 for fiscal year 2004; $44,000,000 for fiscal year 2005; and $47,500,000 for fiscal year 2006.*

(d) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—To enable the National Institute of Standards and Technology to carry out responsibilities that may be assigned to it under this Act, there are authorized to be appropriated $425,000 for the fiscal year ending September 30, 1981; $425,000 for the fiscal year ending September 30, 1982; $475,000 for the fiscal year ending September 30, 1983; $475,000 for the fiscal year ending September 30, 1984; $498,750 for the fiscal year ending September 30, 1985 $499,000 for the fiscal year ending September 30, 1986; $521,000 for the fiscal year ending September 30, 1987; $525,000 for the fiscal year ending September 30, 1988; $525,000 for the fiscal year ending September 30, 1989; $2,525,000 for the fiscal year ending September 30, 1990; $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. There are authorized to be appropriated, out of funds otherwise authorized to be appropriated to the National Institute of Standards and Technology, $1,900,000 for the fiscal year ending September 30, 1995, $1,957,000 for the fiscal year ending September 30, 1996, $2,000,000 for the fiscal year ending September 30, 1998, $2,060,000 for the fiscal year ending September 30, 1999, $2,332,000 for fiscal year 2001, $2,431,000 for fiscal year 2002, and $2,534,300 for fiscal year 2003. *There are authorized to be appropriated to the National Institute of Standards and Technology for carrying out this Act $8,000,000 for fiscal year 2004; $9,600,000 for fiscal year 2005; and $12,500,000 for fiscal year 2006. Of such amounts appropriated, not less than $2,000,000 shall be made available each such fiscal year for supporting the development of performance-based, cost-effective, and affordable codes for buildings, structures, and lifelines.*

SEC. 13. ADVANCED NATIONAL SEISMIC RESEARCH AND MONITORING SYSTEM.

(a) * * *

* * * * * * *

[(c) AUTHORIZATION OF APPROPRIATIONS.—

[(1) EXPANSION AND MODERNIZATION.—In addition to amounts appropriated under section 12(b), there are authorized to be appropriated to the Secretary of the Interior, to be

used by the Director of the United States Geological Survey to establish the Advanced National Seismic Research and Monitoring System—

[(A) $33,500,000 for fiscal year 2002;

[(B) $33,700,000 for fiscal year 2003;

[(C) $35,100,000 for fiscal year 2004;

[(D) $35,000,000 for fiscal year 2005; and

[(E) $33,500,000 for fiscal year 2006.

[(2) OPERATION.—In addition to amounts appropriated under section 12(b), there are authorized to be appropriated to the Secretary of the Interior, to be used by the Director of the United States Geological Survey to operate the Advanced National Seismic Research and Monitoring System—

[(A) $4,500,000 for fiscal year 2002; and

[(B) $10,300,000 for fiscal year 2003.]

SEC. 14. NETWORK FOR EARTHQUAKE ENGINEERING SIMULATION.

(a) * * *

(b) AUTHORIZATION OF APPROPRIATIONS.—In addition to amounts appropriated under section 12(c), there are authorized to be appropriated to the National Science Foundation for the George E. Brown, Jr. Network for Earthquake Engineering Simulation—

(1) * * *

* * * * * * *

(3) $4,500,000 for fiscal year 2003; [and]

[(4) $17,000,000 for fiscal year 2004.]

(4) $8,000,000 for fiscal year 2004;

(5) $20,000,000 for fiscal year 2005, all of which shall be available for operations and maintenance; and

(6) $20,000,000 for fiscal year 2006, all of which shall be available for operations and maintenance.

* * * * * * *

XIX. COMMITTEE RECOMMENDATIONS

On July 22, 2003, a quorum being present, the Committee on Science favorably reported H.R. 2608, the National Earthquake Hazards Reduction Program Reauthorization Act of 2003, by a voice vote, and recommended its enactment.

XX. EXCHANGE OF COMMITTEE CORRESPONDENCE

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE,
Washington, DC, August 7, 2003.

Hon. RICHARD W. POMBO,
Chairman, Committee on Resources, Longworth House Office Building, Washington, DC.

DEAR MR. CHAIRMAN: Thank you for your letter concerning H.R. 2608, the National Earthquake Hazards Reduction Program Reauthorization Act of 2003. I greatly appreciate your offer to waive referral of H.R. 2608 to expedite its consideration.

I agree that waiving the Committee on Resources' referral in the case of H.R. 2608 does not waive your Committee's jurisdiction. Be

assured that our Committee plans to work with you to ensure passage of this legislation.

We intend to include a copy of our exchange of letters on this matter in the Committee Report on H.R. 2608 and the Congressional Record during floor consideration of H.R. 2608. Further, I would be pleased to support the representation of your Committee at any conference on H.R. 2608 as well as any similar or related legislation and would ask that you support a similar request by the Committee on Science.

Thank you for your consideration and attention regarding this matter.

Sincerely,

SHERWOOD L. BOEHLERT,
Chairman.

HOUSE OF REPRESENTATIVES,
COMMITTEE ON RESOURCES,
Washington, DC, August 6, 2003.

Hon. SHERWOOD BOEHLERT,
Chairman Committee on Science, Rayburn House Office Building, Washington, DC.

DEAR MR. CHAIRMAN: I have reviewed the text of H.R. 2608, the National Earthquake Hazards Reduction Program Reauthorization Act of 2003, as ordered reported from the Committee on Science on July 22, 2003. The Committee on Resources has received an additional referral of this bill.

Recognizing your wish that this bill be considered by the House of Representatives as soon as possible, I will not insist on exercising the Committee on Resources' referral of H.R. 2608. However, waiving the Committee on Resources' referral in this case does not waive the Committee's jurisdiction over any provision in H.R. 2608 or similar provisions in other bills. In addition, I ask that you support my request to have the Committee on Resources represented on the conference on this bill, if a conference is necessary. Finally, I ask that you include this letter in the Committee on Science's bill report.

I appreciate your cooperation on this bill, and I look forward to working with you to see that H.R. 2608 is enacted into law soon.

Sincerely,

RICHARD W. POMBO,
Chairman.

XXI PROCEEDINGS OF THE FULL COMMITTEE MARKUP ON H.R. 2608, NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM REAUTHORIZATION ACT OF 2003, JULY 22, 2003

The Committee met, pursuant to call, in room 2318 of the Rayburn House Office Building, Hon. Sherwood D. Boehlert (chairman of the committee) presiding.

Chairman BOEHLERT. We will now consider the bill H.R. 2608, the National Earthquake Hazard Reduction Program Reauthorization Act of 2003.

I now recognize the Research Subcommittee Chairman Mr. Smith for any comments he may have on the bill.

Mr. SMITH of Michigan. Mr. Chairman, I would ask unanimous consent that my total statement on the bill be entered into the record.

Chairman BOEHLERT. Without objection, so ordered.

Mr. SMITH of Michigan. And a brief summary is the objectives of this bill are to mitigate the impact of earthquakes on lives and property, and while the existing program over the years has provided a wealth of useful information, its success has been limited by poor energy—inter-agency coordination and declining funding in real terms, and so that is what we dealt with in this reauthorization bill. We increased the funding 33 percent over what was appropriated last year. Funding, if you take into consideration major equipment projects, has been increased, and the legislation tries to insist that there be better management and better coordination of NEHRP and in terms of the energy—inter-agency cooperation, Mr. Chairman, the establishment of an inter-agency coordinating committee to manage NEHRP planning and coordination to be chaired by the Director of NIST, the establishment of an external advisory committee and I just thank both sides of the aisle and certainly Congresswoman Lofgren for working on the effort to accomplish this bipartisan bill.

[The statement of Nick Smith follows:]

COMMENTS AND BILL DESCRIPTION BY MR. SMITH OF MICHIGAN

• Mr. Chairman, I will just summarize the highlights of this bill briefly. It reauthorizes the National Earthquake Hazards Reduction Program, or NEHRP, through fiscal year 2006, and makes significant changes to the structure and coordinating mechanisms within the Program, while maintaining the Program's important objectives to mitigating the impact of earthquakes on lives and property.

• NEHRP was established in 1997, and funds earthquake related activities of the Federal Government through the Federal Emergency Management Agency (FEMA), U.S. Geological Survey (USGS), National Science Foundation (NSF), and National Institute of Standards and Technology (NIST). While the Program has provided a wealth of useful information during its 25 years, its success has been limited by poor interagency coordination and declining funding in real terms. Addressing these concerns was our top priority in crafting this legislation.

• The bill's major provisions include: (1) establishment of an Interagency Coordinating Committee to manage NEHRP planning and coordination, to be chaired by the Director of NIST; (2) establishment of an external Advisory Committee of non-Federal stakeholders to provide suggestions for improvements in NEHRP; (3) reauthorization of funds for completion of the Advanced National Seismic System, an integrated seismic monitoring network that was authorized by the Science Committee three years ago but has yet to receive adequate funding; and (4) significant funding increases for NIST, reflecting the call for increased emphasis on promoting the adoption into practice of hazard reduction applications.

• In examining the possibility of making structural change to the Program to create the Interagency Coordinating Committee (ICC) and transferring leadership of the ICC from FEMA to NIST, I want to note that this was a very difficult decision for us, and one that we considered very carefully. Ultimately, we decided to make the change for a combination of reasons, including (1) FEMA's ongoing inability to effectively coordinate with other program agencies and conduct reporting and other lead agency responsibilities; (2) concerns about the impact of FEMA's transfer into the Department of Homeland Security; and (3) a confidence in NIST's ability to effectively handle lead agency responsibilities; and (4) a desire to strengthen what is currently just a token role by NIST in the program.

• I do want to emphasize, however, that (1) we still believe FEMA has a very important—more accurately, indispensable—role to play in helping NEHRP succeed; and (2) for NIST to succeed as lead agency, this Committee and others in Congress will have to provide stronger oversight and support to see the changes envisioned in this bill become a reality.

• I believe that taxpayer funds for this Program, if directed to the right priorities and implemented as a true interagency program, can be leveraged many times over. It is a very important program that we forget about all too easily. But we know that

though infrequent, earthquakes are inevitable, and that is just a matter of time before damaging earthquakes occur again. Until that time, we can only promote policies at all levels of government to increase preparedness and strength of the built environment. This legislation helps us to do that.

• I am pleased to say that we worked closely with the minority in drafting a bipartisan NEHRP authorization bill, and that the bill has been endorsed by the NEHRP Coalition, a consortium representing the earthquake community and including the American Geological Institute, American Society of Civil Engineers, Earthquake Engineering Research Institute, and Seismological Society of America. We have also received very positive feedback from the Office of Science and Technology Policy on the major provisions of the legislation.

• I would urge all members to support both the Manager's Amendment as well as the underlying bill.

Chairman BOEHLERT. Thank—thank you very much. Your partner in this venture, Mr. Baird, who has been so instrumental in working cooperatively with you to get this bill moving forward, is not here. Without objection, his statement shall appear in the record at this juncture.

The Chair recognizes Mr. Hall for any statement he might care to make.

Mr. HALL. Mr. Chairman, I join you in support of this legislation. I ask unanimous consent that my report be placed in the record.

Chairman BOEHLERT. Without objection, so ordered.

[The statement of Ralph M. Hall follows:]

STATEMENT BY HON. RALPH M. HALL

Mr. Chairman, I join you in support of H.R. 2608, the National Earthquake Hazards Reduction Program Reauthorization Act. This interagency earthquake program was established 25 years ago to address the serious seismic hazard in the United States. It has the major goal of determining how to lower the risk to people and to the built environment.

Although the earthquake program has made many contributions to understanding earthquakes and how to design structures and lifelines to resist the effects of earthquakes, much work remains to be done.

The bill focuses on two aspects of the program in need of reform—program leadership and increased emphasis on transitioning the results of research to practice. Program leadership is addressed by designating NIST as the lead agency for planning and coordinating program implementation. The participating agencies are tasked to join NIST in developing a unified budget for the program and a set of program goals, taking into consideration the advice of a newly established outside advisory committee.

The manager's amendment to be offered by Research Subcommittee Chairman Smith was developed with the cooperation of this side of the aisle. The final language of the amendment is the result of a close consultation with the earthquake research and earthquake hazards communities.

I strongly support H.R. 2608 and recommend the measure to my colleagues for their approval.

Chairman BOEHLERT. Mr.—Dr. Ehlers.

Mr. EHLERS. Thank you, Mr. Chairman. I have a statement, and I will ask that it be placed in the record, but I want to summarize that concern. I am the Chairman of the Subcommittee with jurisdiction over the National Institute of Standards and Technology, and this legislation designates NIST as the Chair of the National Earthquake Hazard Reduction Program. They can certainly carry out this program. They obviously can handle it, and they have done very well with fire-related issues. However, as I mentioned earlier today, the underfunding of NIST labs is not a new problem. It is ongoing, and today we are considering on the floor of the Commerce, State and Justice appropriations bill, which provides a funding level for NIST $30 million below the President's request and flat compared to the fiscal year '03 appropriations. You combine

that with the fact that we are assigning yet another responsibility to them. I have great concerns about this and I respectfully request that the report language for this bill indicate that the Science Committee intends to work closely and forcefully with the other members of the NEHRP inter-agency coordinating committee, the Office of Budget and the Chairman and Members of the Commerce, Justice and State Appropriations Committee to ensure that NIST receives adequate appropriations and support for these additional responsibilities.

Mr. SMITH of Michigan. Would the gentleman yield some time for——

Mr. EHLERS. With that, I move that the statement be entered into the——

Mr. SMITH of Michigan. Would the gentleman yield?

Mr. EHLERS. I will be happy to yield.

Chairman BOEHLERT. And would the—he asked that the statement be entered into the record. Without objection, so ordered.

[The statement of Vernon J. Ehlers follows:]

STATEMENT OF HON. VERNON J. EHLERS

As chairman of the Subcommittee with jurisdiction over the National Institute of Standards and Technology (NIST), I want to comment on the Interagency Coordinating Committee in Section 3 of H.R. 2608. This section designates NIST as the chair of the National Earthquake Hazards Reduction Program (NEHRP) coordinating committee. While I believe that NIST is capable of carrying out these responsibilities, I am concerned that the Institute will not receive adequate funding to perform these duties. In the past NIST's earthquake research activities have not received the full funding authorized to them, and this section designates additional responsibilities for NIST.

The under-funding of NIST labs is not a new problem. Today we are considering the Commerce, Justice, and State Appropriations bill on the floor. The funding levels for NIST labs in this bill are $30 million below the President's request, and flat compared to the FY03 appropriations. This leaves many of NIST's vital initiatives under-funded and, in addition, because substantial funds are needed for mandatory cost-of-living increases, would result in a reduction-in-force of 50 scientists and staff from NIST labs. For the building and fire research lab, where NIST's NEHRP activities are based, the funding level in the FY04 bill is $3 million less than FY03 level.

Yet, NIST is an important institution to this Committee, which has given the Institute new responsibilities for programs including voting standards, building safety, fire safety (another bill we are considering here today), and nanotechnology. At some point we have to make a concerted effort to ensure NIST receives the money to carry out these important duties.

I respectfully request that report language for H.R. 2608 indicate that the Science Committee intends to work closely and forcefully with the other members of the NEHRP Interagency Coordinating Committee, the Office of Science and Technology Policy, the Office of Management and Budget, and the Chairman and Members of the Commerce, Justice, and State Appropriations Subcommittee to insure that NIST receives adequate appropriations and support for these additional responsibilities. Thank you.

Mr. SMITH of Michigan. I just would like to indicate that the authorization, and we don't appropriate, we authorize, the authorization for NIST has been increased from $2.5 up to $8 as far as the authorization increase to cover the cost of the additional responsibility.

Mr. EHLERS. Right, and then my plea is that we work very hard to make sure that the appropriation matches it.

Chairman BOEHLERT. Thanks. I am glad to have that understanding. Without objection, all members may place opening statements in the record at this point. The Chair recognizes Ms. Lofgren.

Ms. LOFGREN. Thank you, Mr. Chairman. I just—very briefly, we are getting towards the end of a rather long markup, but I did want to thank both the Chairman and the Chairman of the Subcommittee for their very good efforts in putting together a bill that I think we all agree has a good chance of improving performance in the Agency. I think we all were concerned at the new home in the Department of Homeland Security, and I really feel it was a good process of trying to reach consensus, not only between us on the Committee, but among the agencies of what might work and certainly, the private sector, on what might work better, and I think this is the best guess we can have right now. We certainly want to see how it works and if there are further improvements that could be made, I know that we will work together on that, and I especially want to say I very much agree with the need for additional—the additional authorization, and I would like to work with the Chairman of both the Committee and Subcommittee to see that this is fully appropriated.

This is one of those areas where you can be penny-wise and pound-foolish, and I recall the disparity in disaster costs between Oakland, San Francisco and San Jose during the Loma Prieta Earthquake, and event that was described as a tiny one by one of the seismologists. It seemed kind of remarkable to me. It didn't seem tiny to me, but really, it was good engineering, and if you look at where we are at risk across the United States, it is not just California. It is the Midwest, it is all over, and so it is an imperative that we get these engineering standards upgraded and deployed if we are going to avoid just catastrophic costs for the United States, so I enjoyed participating in the process, and I look forward to working with you further in the future, and I thank you for recognizing me and yield back.

Chairman BOEHLERT. Thank you so much, and add to the list upstate New York. All right. I ask unanimous consent that the bill is considered as read and opened to amendment at any point and that the members proceed with the amendments in the order of the roster. Without objection, so ordered.

Mr. SMITH of Michigan. I have an amendment at the desk, Mr. Chairman.

Chairman BOEHLERT. Mr. Smith, the next amendment on the roster is amendment #1 offered by Mr. Smith from Michigan. I ask unanimous consent that the amendment be considered en bloc. Without objection, so ordered. Are you ready to proceed, Mr. Smith?

Mr. SMITH of Michigan. We are ready, Mr. Chairman. There being——

Chairman BOEHLERT. The Clerk will report the amendment.

Ms. TESSIERI. Amendment to H.R. 2608, offered by Mr. Smith of Michigan.

Chairman BOEHLERT. I ask unanimous consent to dispense with the reading. Without objection, so ordered. Mr. Smith is recognized for 5 minutes.

Mr. SMITH of Michigan. The amendment adds additional report language. It gives additional authorization to FEMA. It directs also that the National Science Foundation, to support research on improving the safety and performance of buildings, structures, lifelines, using large scale experimental and computation facilities.

The amendment also makes three changes to Section 4, to increase funding to FEMA and some other technical increases, and Mr. Chairman, I would move that the complete statement of the amendment also be——

Chairman BOEHLERT. Without objection, so ordered. The amendment has been worked with—cooperation and consultation on the part of the minority, so if there is no further discussion, the vote occurs on the amendment. All in favor, say aye. Aye. Opposed, no. The ayes have it and the amendment is agreed to. The next amendment on the roster is amendment #3 offered by Mr. Moore of Kansas. Mr. Hall, are you going to offer Ms. Jackson-Lee's?

Mr. HALL. Yes, I would be glad to.

Chairman BOEHLERT. Amendment #2 offered by Mr. Hall on behalf of Ms. Jackson-Lee. Ready to proceed?

Mr. MOORE. Ready to proceed, Your Honor.

Chairman BOEHLERT. The Clerk will report the amendment.

Mr. MOORE. This amendment makes sure that we tap into all——

Chairman BOEHLERT. Let the Clerk report.

Ms. TESIERI. Amendment to H——

Chairman BOEHLERT. Let the Clerk.

Ms. TESSIERI. Amendment to H.R. 2608 offered by Mr. Hall on behalf of Ms. Jackson-Lee of Texas.

Chairman BOEHLERT. The gentleman is recognized.

Mr. HALL. This amendment simply makes sure that we tap into all the resources that our system has to offer by stating that activities in the new program will include to the maximum extent practicable diverse institutions including historically black colleges and universities and those serving large proportions of Hispanics, Native Americans, Asian-Pacific Americans, or other underrepresented populations. The amendment will ensure that our federal reserve programs are as inclusive as possible and not exclusive of people in program that need and deserve support. I hope you can support it.

Chairman BOEHLERT. I certainly can support it. It is a good amendment, as——

Mr. SMITH of Michigan. Mr. Chairman, I also——

Chairman BOEHLERT. Mr. Smith.

Mr. SMITH of Michigan. As the Chairman of the Subcommittee, I also support the amendment.

Chairman BOEHLERT. The vote is on the amendment. All in favor say aye. Aye. Opposed, no. The ayes have it and the amendment is agreed to. The next amendment on the roster is amendment #3, offered by Mr. Moore from Kansas. Are you prepared?

Mr. MOORE. Yes, I am. Thank you, Mr. Chairman. I have an amendment at the desk.

Chairman BOEHLERT. The Clerk will report the amendment.

Mr. MOORE. Mr. Chairman, I ask unanimous consent the amendment be considered as read.

Chairman BOEHLERT. Without objection, so ordered.

Chairman BOEHLERT. Mr. Moore is recognized for 5 minutes.

Mr. MOORE. Thank you, Mr. Chairman and Ranking Member Hall. As many of you know, this amendment I am offering today includes sections of a bill, H.R. 2020, some of which you are cosponsoring, which was first introduced in the 106th Congress. The

base bill here talks about earthquakes and earthquakes certainly are a natural disaster that can take lives and destroy property. By the same token, tornados can take lives and wind can take lives and destroy property. This legislation, my initial bill, came about after devastating tornados in my hometown of Wichita, Kansas in 1999. I drafted legislation modeled after NEHRP to mitigate loss of life and property due to winds and related hazards. I requested comments from the American Society of Civil Engineers, the American Association of Homebuilders, the insurance industry, meteorologists, emergency managers, academia, industry and the manufactured housing associations to fine-tune the legislation.

On May 4 of this year, almost 4 years to the day after the deadly 1999 Kansas and Oklahoma tornados, tornados again struck in metropolitan Kansas City and the surrounding suburbs and many of my Science Committee's colleagues' districts, destroying property and killing our constituents. These tornados didn't check with Congress to see if they were hitting Republican or Democratic districts. They struck. This is not a Republican or Democratic issue, it is a human issue and a human tragedy.

These windstorms destroy lives. I have seen it in my own district, and I know many of my colleagues have seen it in their districts as well. I know, for example, in May, the same time that tornados struck in Kansas, or around the same time, tornados raced across the state of Oklahoma, stretching from the Oklahoma panhandle to the south, central and northeastern sections of that state.

Over the weekend of May 9, tornados left 145 people injured, one dead and 2,889 single family homes damaged with over $100 million in damage.

Mr. Chairman, I would like to work with you and this Committee to move legislation to mitigate loss of life and property due to wind and related hazards. I understand that my amendment is not considered germane to the NEHRP legislation. At this time, I would like to ask you, Mr. Chairman, if you would consider markup of my legislation or similar legislation in the near future.

Chairman BOEHLERT. I can assure the gentleman that we will work with him and others on the Committee who have expressed similar interest, Mr. Lucas, Ms. Hart. I think there are 22 colleagues on my side that have co-sponsored a bill. It is a very important subject that needs to be addressed, and we will work with you on a bill in this Congress, not next Congress, this Congress.

Mr. MOORE. Mr. Chairman, I very much appreciate your assurances and I look forward to working with you on this important——

Mr. SMITH of Michigan. Would the gentleman yield before he withdraws?

Mr. MOORE. Absolutely.

Mr. SMITH of Michigan. It is interesting. In talking to the architects, especially on residential houses, they have just a military, because of military construction codes, they have just developed a very simple change in building when they build a residential house on top of the studs, the plate is two two-by-fours, there is one two-by-four at the bottom. By putting two two-by-fours at the bottom, they increase the wind resistance by almost 60 percent. So there are many areas that we need to explore that can have tremendous

results in protecting lives and property. And I yield back. Thank you so much.

Chairman BOEHLERT. Mr. Moore.

Mr. MOORE. And I thank the gentleman for his comments, and I thank the Chairman for his assurances, and I yield back the balance of my time.

Chairman BOEHLERT. Are you asking unanimous consent that the amendment be withdrawn?

Mr. MOORE. Yes, Your Honor.

Chairman BOEHLERT. And without objection, so ordered. Are there any further amendments? Seeing no—yes, Mr. Moore? Okay. If not, the vote occurs on final passage, H.R. 2608, the National Earthquake Hazard Reduction Program Reauthorization Act of 2003. All those in favor say aye. Aye. Opposed, no. The ayes have it, and in the opinion of the Chair, the ayes do have it. I now recognize Mr. Hall for a motion.

Mr. HALL. Mr. Chairman, I move that the Committee favorably report H.R. 2608, as amended, to the House with a recommendation that a bill, as amended, do pass. Furthermore, I move that the staff be instructed to prepare the legislative report and make necessary technical and conforming changes, and that the Chairman take all necessary steps to bring that bill before the House for consideration.

Chairman BOEHLERT. The Chair notes the presence of a reporting quorum. The question is on the motion to report the bill favorably. Those in favor of the motion will signify by saying aye. Aye. Opposed, no. The ayes appear to have it and the bill is favorably reported. Without objection, the motion to reconsider is laid upon the table. I move that members have two subsequent calendar days in which to submit supplemental, minority, or additional views on the measure. I move pursuant to Clause 1 of Rule 22 of the House of Representatives that the Committee authorize the Chairman to offer such motions as may be necessary in the House to go to conference with the Senate on the bill H.R. 2608 or a similar Senate bill. Without objection, so ordered.

[Whereupon, the Committee proceeded to other business.]

STATEMENT

THE HONORABLE JERRY F. COSTELLO

COMMITTEE ON SCIENCE

MARKUP

HR 1085, NASA Flexibility Act of 2003; HR 2734, Federal Aviation Administration Research and Development Authorization Act; HR 1856, Harmful Algal Bloom and Hypoxia Research Amendments Of 2003; HR 2801 ,Minority Serving Institution Digital and Wireless Technology Opportunity Act of 2003; HR 2608, National Earthquake Hazards Reduction Program Reauthorization Act of 2003; And HR 2692, United States Fire Administration Authorization Act of 2003

July 22, 2003

Good morning. Today, the House Science Committee is considering six bills for mark-up. Most are non-controversial and receive wide bipartisan support.

However, I have strong reservations regarding HR 1085, the NASA Flexibility Act of 2003. I believe we must wait for recommendations and guidance from the Gehman Commission that will address management issues. If we are going to address the problems concerning NASA, we need to take into account the goals and vision of NASA and manned space flight. I understand that NASA needs to do more to attract and retain the best possible workforce; however, I believe we can assist NASA by waiting to hear what recommendations the Gehman Commission makes so we can address all the management problems affecting NASA and its workforce. I believe we must also continue to review NASA's existing workforce authority and why it is underutilized.

Mr. Chairman, instead of rushing to complete this significant legislation, I believe we must take a step back and review all our options before moving forward on legislation that does not address the problem.

Aside from HR 1085, I believe the other pieces of legislation have been considered in a bipartisan fashion and expand programs in numerous agencies. For example, HR 2692, the United States Fire Administration (USFA) Authorization Act of 2003, authorizes funding for USFA activities, such as training, fire research and public education over the next three years. Over the last three decades, America's fire safety record has significantly improved. However, there are still opportunities for further improvements in our fire safety record, such as encouraging the use of sprinkler systems in homes. HR

2692 will lead us in the right direction. As a member of the Congressional Fire Services Caucus, I am proud to support this legislation.

Further, I am glad the House Science Committee is moving forward on the FAA Research and Development Reauthorization Act of 2003. As a conferee to the FAA bill for the Science Committee, I look forward to working with my colleagues to enhance the research and development programs as laid out in the legislation before this committee.

Mr. Chairman, I want to thank the committee for all their hard work on these important issues and look forward to today's proceedings.

STATEMENT ON MARKUP OF H.R. 2608, NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM REAUTHORIZATION ACT OF 2003

By

HON. EDDIE BERNICE JOHNSON

Mr. Chairman, I join you in support of H.R. 2608, the National Earthquake Hazards Reduction Program Reauthorization Act. This interagency earthquake program was established 25 years ago to address the serious seismic hazard in the United States. It has the major goal of determining how to lower the risk to people and to the built environment.

Although the earthquake program has made many contributions to understanding earthquakes and how to design structures and lifelines to resist the effects of earthquakes, much work remains to be done.

This bill focuses on two aspects of the program in need of reform – program leadership and increased emphasis on transitioning the results of research to practice. Program leadership is addressed by designating NIST as the lead agency for planning and coordinating program implementation. The participating agencies are tasked to join NIST in developing a unified budget for the program and a set of program goals, taking into consideration the

advice of a newly established outside advisory committee.

The manager's amendment to be offered by Research Subcommittee Chairman Smith was developed with the cooperation of this side of the aisle. The final language of the amendment is the result of a close consultation with the earthquake research and earthquake hazards communities.

I strongly support H.R. 2608 and recommend the measure to my colleagues for their approval.

STATEMENT

CONGRESSWOMAN SHEILA JACKSON LEE

ON MINORITY INSTITUTIONS AMENDMENT TO THE

EARTHQUAKES RESEARCH ACT

JULY 22, 2003

Mr. Chairman,

I am nothing if not steadfast.

This amendment is very similar to the one I offered in the Algal Blooms bill earlier, and to those I have introduced on several research bills in the past. It ensures that as we design exciting and important

research grant programs, that we take advantage of the diverse range of American institutes of higher learning, and include Historically Black Colleges and Universities and those serving large proportions of Hispanics, Native Americans, Asian-Pacific Americans, or other underrepresented populations.

These amendments help harvest the great potential of those institutions, and ensure that the scientific and academic leaders of tomorrow will be culturally and intellectually diverse.

I thank you, and all of my colleagues here on the Science Committee, for consistently supporting these amendments, and confirming the notion that federal dollars should be used to the benefit of all of the American people.

I hope you can support this one as well.

H.R. 2608, THE NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM AUTHORIZATION ACT OF 2003

MANAGER'S AMENDMENT DESCRIPTION

TUESDAY, JULY 22, 2003

- **This manager's amendment makes several minor changes to sections three and four of H.R. 2608. In section three, the amendment requires the Interagency Coordinating Committee established in the underlying legislation to include in their annual report to Congress a description of the budget and activities associated with the Federal Emergency Management Agency's state assistance grant program. The amendment also amends section three to make several clarifying changes to agency NEHRP responsibilities, such as authorizing FEMA to assist in the preparation and dissemination of building codes and practices, as well as the development of cost-effective performance-based codes; authorizing the U.S. Geological Survey to maintain seismic hazard maps to support building codes for structures and lifelines, including performance-based design approaches; and authorizes the National Science Foundation to support research on improving the safety and performance of buildings, structures, and lifeline systems using large-scale experimental and computational facilities, in particular the soon-to-be completed George Brown Network for Earthquake Engineering Simulation (NEES), part of NSF's major research equipment account.**

- **The amendment also makes three changes to section four of H.R. 2608, the appropriations section. It (1) increases funding for FEMA by $500,000 each year, and specifies that not less than $3,000,000 of the total amount authorized shall be available each year for supporting the development of performance-based, cost-effective, and affordable codes for buildings, structures, and lifelines. Similarly, the amendment specifies that, of the amounts authorized for NIST, not less than $2,000,000 shall be available each year for supporting the development of performance-based, cost-effective, and affordable codes for buildings, structures, and lifelines. And finally, the amendment increases the authorized funding level for NEES (mentioned above) to $20 million per year in FY 2005 and 2006 for operations and maintenance of earthquake engineering research centers.**

- **Again, we have worked this out with our minority and members of the earthquake hazards reduction community. I urge all members to support it.**

COMMITTEE ON SCIENCE
FULL COMMITTEE MARKUP
July 22, 2003

AMENDMENT ROSTER

H.R. 2608, National Earthquake Hazards Reduction Program Reauthorization Act of 2003

--Motion to adopt the bill, as amended: agreed to by a voice vote.
--Motion to report the bill, as amended: agreed to by a voice vote.

No.	Sponsor	Description	Results
1.	Mr. Smith, (MI)	Manager's Amendment	--Adopted by a voice vote.
2.	Amendment was offered by Mr. Hall on behalf of Ms. Jackson Lee	Amendment adds language to the bill on diverse institutions.	--Adopted by a voice vote.
3.	Mr. Moore	Amendment adds a new title to the bill - Title II—Hurricane, Tornado, and Related Hazards Research	--Unanimous consent request to withdraw the amendment; agreed to by a voice vote.

AMENDMENT TO H.R. 2608
OFFERED BY MR. SMITH OF MICHIGAN

Page 3, line 4, insert ", structures," after "buildings".

Page 3, line 8, strike "standards and guidelines for earthquake hazards reduction for structures and lifelines;" and insert "standards, guidelines, and voluntary consensus codes for earthquake hazards reduction for buildings, structures, and lifelines;".

Page 3, line 16, strike "buildings and lifelines" and insert "buildings, structures, and lifelines through interdisciplinary research that involves engineering, and natural, social, economic, and decisions sciences".

Page 6, line 13, strike "and".

Page 6, line 18, strike the period and insert "; and

1 "(F) a description of the activities, including budgets for the current fiscal year and proposed budgets for the following fiscal year, related to the grant program carried out under subsection (b)(2)(A)(i).

Page 6, line 24, strike ", and State and local government" and insert "standards development organizations, State and local government, and financial communities".

Page 9, line 16, strike "paragraph (2)(A)" and all that follows through line 20, and insert "paragraph (2)(A)—

1 (i) by striking "In addition to the
2 lead" and all that follows through "Agen-
3 cy" and inserting "The Director of the
4 Federal Emergency Management Agency
5 (in this Act referred to as the 'Agency')";
6 and
7 (ii) by amending clause (iii) to read as
8 follows:
9 "(iii) assist the National Institute of
10 Standards and Technology, other Federal
11 agencies, and private sector groups in the
12 preparation and wide dissemination of
13 building codes and practices for structures
14 and lifelines, and aid in the development of
15 performance based codes for buildings,
16 structures, and lifelines that are cost effec-
17 tive and affordable;";

Page 10, line 16, strike "subparagraph" and insert "subparagraphs".

Page 10, line 22, strike "countries.'; and" and insert "countries;".

Page 10, after line 22, insert the following (and redesignate the subsequent subparagraph accordingly):

1 "(J) maintain suitable seismic hazard
2 maps in support of building codes for structures
3 and lifelines, including additional maps needed
4 for performance based design approaches."; and
5 (D) in paragraph (4), by redesignating
6 subparagraphs (D), (E), and (F) as subpara-
7 graphs (E), (F), and (G), respectively, and in-
8 serting after subparagraph (C) the following:
9 "(D) support research that improves the
10 safety and performance of buildings, structures,
11 and lifeline systems using large-scale experi-
12 mental and computational facilities;".

Page 11, strike lines 11 through 15, and insert the following:

13 "(8) There are authorized to be appropriated to
14 the Federal Emergency Management Agency for car-
15 rying out this Act $19,000,000 for fiscal year 2004;

1 $21,000,000 for fiscal year 2005; and $23,000,000
2 for fiscal year 2006. Of such amounts appropriated,
3 not less than $3,000,000 shall be made available
4 each such fiscal year for supporting the development
5 of performance-based, cost-effective, and affordable
6 codes for buildings, structures, and lifelines.";

Page 12, strike line 22 through page 13, line 2, and insert the following:

7 (4) in subsection (d) by adding at the end the
8 following: "There are authorized to be appropriated
9 to the National Institute of Standards and Tech-
10 nology for carrying out this Act $8,000,000 for fis-
11 cal year 2004; $9,600,000 for fiscal year 2005; and
12 $12,500,000 for fiscal year 2006. Of such amounts
13 appropriated, not less than $2,000,000 shall be
14 made available each such fiscal year for supporting
15 the development of performance-based, cost-effective,
16 and affordable codes for buildings, structures, and
17 lifelines.".

Page 13, line 10, strike "$15,000,000" and insert "20,000,000".

Page 13, line 13, strike "$15,000,000" and insert "20,000,000".

AMENDMENT TO H.R. 2608 BY MR. HALL OF TEXAS

ON BEHALF OF MS. JACKSON LEE OF TEXAS

Page 10, line 22, strike "and", and insert after line 22 the following (and redesignate the subsequent subparagraph accordingly):

1 (D) in paragraph (4)—

2 (i) in subparagraph (E), by striking "; 3 and" and inserting a semicolon; and

4 (ii) by redesignating subparagraph 5 (F) as subparagraph (G), and inserting 6 after subparagraph (E) the following:

7 "(F) include to the maximum extent prac- 8 ticable diverse institutions, including Histori- 9 cally Black Colleges and Universities and those 10 serving large proportions of Hispanics, Native 11 Americans, Asian-Pacific Americans, and other 12 underrepresented populations; and

AMENDMENT TO H.R. 2608

OFFERED BY MR. MOORE

Page 1, afer line 6, insert the following (and redesignate sections 2 through 4 as sections 101 through 103, respectively):

TITLE I—NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM.

At the end of the bill insert the following:

TITLE II—HURRICANE, TORNADO, AND RELATED HAZARDS RESEARCH

SEC. 201. FINDINGS.

The Congress finds the following:

(1) Natural disasters cause enormous loss of life. Almost all States and territories are at risk from the effects of 1 or more types of natural disaster. Coastal States and many island States and territories are vulnerable to the hazards of windstorms. All Midwest, Southern, and Mid-Atlantic States are vulnerable to the hazards of tornadoes and thunderstorms and increased building activity is

1 occurring in high-risk areas such as the seashore
2 and "tornado alley".
3 (2) Hurricanes, which combine high winds and
4 flooding, and related natural disasters cause enor-
5 mous loss of life, injury, destruction of property, and
6 economic and social disruption, as evidenced by the
7 56 deaths and $6,000,000,000 in property damage
8 in 1999 from Hurricane Floyd. From 1990 to 1999
9 hurricanes caused an average of 14 deaths and
10 $4,970,000,000 in property losses annually while
11 tornadoes and other windstorms caused over 58
12 deaths and $871,000,000 in property losses annu-
13 ally.
14 (3) Improved windstorm and related hazard re-
15 duction measures have the potential over the next 10
16 years to reduce these losses that will only increase
17 if steps are not taken to help communities reduce
18 their vulnerability. These measures include—
19 (A) cost-effective and affordable design
20 and construction methods and practices;
21 (B) effective mitigation programs at the
22 local, State, and national level;
23 (C) informed land use decisions;
24 (D) impact prediction methodologies and
25 early warning systems;

1 (E) application of research results; and
2 (F) public education and outreach pro-
3 grams.
4 (4) Engineering research needs to address both
5 improving new structures and retrofitting existing
6 ones.
7 (5) There is an appropriate role for the Federal
8 Government in the collection, preparation, coordina-
9 tion, and dissemination of windstorm and related
10 hazards reduction information in order to protect
11 public health and safety and in increasing public
12 awareness of the dangers of these hazards and of af-
13 fordable steps homeowners can take to preserve life
14 and property. Improved outreach and implementa-
15 tion mechanisms are needed to translate existing in-
16 formation and research findings into usable, state-
17 of-the-art specifications, criteria, and cost-effective
18 practices for design and construction professionals,
19 State and local officials, manufacturers, and the
20 public.
21 (6) An effective Federal program in windstorm
22 and related hazard reduction will require interagency
23 coordination, input from individuals and institutions
24 outside the Federal Government who are expert in
25 the sciences of natural hazards reduction and in the

1 practical application of mitigation measures, and im-
2 proved mechanisms for the transfer of new knowl-
3 edge to State and local officials, to homeowners, and
4 to the design and construction industry. Tax credits
5 are an effective incentive for helping homeowners
6 apply mitigation measures.
7 (7) Windstorms and related hazards are a
8 worldwide problem, and international cooperation is
9 desirable for mutual learning and mitigation.
10 **SEC. 202. DEFINITIONS.**
11 In this Act:
12 (1) The term "Director" means the Director of
13 the Office of Science and Technology Policy.
14 (2) The term "related hazards" means any nat-
15 urally destructive environmental phenomena related
16 to windstorms such as flooding, wildfires, and hail,
17 and any major hazard of human origin potentially
18 resulting in similar destruction, including terrorist
19 acts.
20 (3) The term "State" means each of the States
21 of the United States, the District of Columbia, the
22 Commonwealth of Puerto Rico, the United States
23 Virgin Islands, Guam, American Samoa, the Com-
24 monwealth of the Northern Mariana Islands, and

1 any other territory or possession of the United
2 States.
3 (4) The term "windstorm" means any storm
4 with a damaging or destructive wind component,
5 such as a hurricane, tropical storm, tornado, or
6 thunderstorm.

7 **SEC. 203. NATIONAL WINDSTORM AND RELATED HAZARD**
8 **IMPACT REDUCTION PROGRAM.**

9 (a) INTERAGENCY GROUP.—Not later than 90 days
10 after the date of the enactment of this Act, the Director
11 shall establish an Interagency Group consisting of rep-
12 resentatives of appropriate Federal agencies, including the
13 National Science Foundation, the National Oceanic and
14 Atmospheric Administration, the National Institute of
15 Standards and Technology, the Department of Energy,
16 and other agencies with jurisdiction over housing, con-
17 struction, and natural disaster mitigation and relief, to be
18 responsible for the development and implementation of a
19 coordinated Federal windstorm and related hazards reduc-
20 tion research, development, and technology transfer pro-
21 gram based on identified public needs. In establishing the
22 Interagency Group, the Director is encouraged, where ap-
23 propriate, to designate lead agencies and to preserve exist-
24 ing programs and functions of Federal agencies and orga-

1 nizations, and shall ensure regular agency coordination
2 and information sharing.
3 (b) OBJECTIVE.—The objective of the windstorm and
4 related hazard impact reduction program is the achieve-
5 ment, within 10 years after the date of the enactment of
6 this Act, of major measurable reductions in losses that
7 would otherwise have occurred to life and property from
8 windstorms and related hazards. The objective is to be
9 achieved through the creation of a program involving co-
10 operation among governments at all levels and the private
11 sector featuring—
12 (1) pertinent basic research and applied re-
13 search based on identified public needs, which takes
14 into account locality-specific weather, susceptibility
15 to natural hazards, design and construction prac-
16 tices, and performance of the built environment dur-
17 ing windstorms and related hazards;
18 (2) better understanding of costs and benefits
19 associated with natural hazard impact reduction;
20 (3) systematic collection of physical and per-
21 formance data for buildings and other structures for
22 use in developing and deploying mitigation meas-
23 ures;
24 (4) an ongoing program of information dissemi-
25 nation on cost-effective and affordable hazard reduc-

1 tion research results and hazard-resistant building
2 construction techniques to industry, State and local
3 governments, homeowners, and the general public;
4 (5) improved technology for loss estimation,
5 risk assessment, hazard identification, prediction,
6 warnings, advanced planning, and disaster response;
7 and
8 (6) increased public awareness of the dangers
9 of windstorms and related hazards, and the value of
10 taking preventative action to preserve affected prop-
11 erty and life.
12 (c) RESEARCH AND DEVELOPMENT ELEMENTS.—
13 The research and development elements of the program
14 may include—
15 (1) peer-reviewed research and development on
16 and demonstration of disaster-resistant systems,
17 based on identified public needs, and materials for
18 new construction and retrofit of existing construc-
19 tion, including composite materials; building enve-
20 lope components, including windows, doors, and
21 roofs; structural design; and design and construction
22 techniques, through physical testing and postdisaster
23 assessments, and through computer simulation when
24 appropriate, taking into consideration life safety and
25 cost-effectiveness, affordability, and regional dif-

1 ferences including susceptibility to windstorm and
2 related hazards;
3 (2) development of quantitative assessment
4 techniques to evaluate the direct, indirect, and soci-
5 etal costs and benefits associated with natural haz-
6 ards, including exploration of mitigation measures
7 that could reduce windstorm vulnerability, and to ef-
8 fectively exploit existing and developing mitigation
9 techniques;
10 (3) development of mechanisms for collecting
11 and inventorying information on building systems
12 and materials performance in windstorms and re-
13 lated hazards, information on identified public miti-
14 gation priorities, and other pertinent information
15 from sources such as the construction industry, in-
16 surance companies, and building officials;
17 (4) development of cost-effective and affordable
18 planning, design, construction, rehabilitation, and
19 retrofit methods and procedures, including utiliza-
20 tion of mitigation measures, for critical lifelines and
21 facilities such as hospitals, schools, public utilities,
22 and other structures that are especially needed in
23 time of disaster;
24 (5) research and development on wind charac-
25 terization and micro-climates and on techniques,

1 methodologies, and new technologies for the map-
2 ping in finer detail of windstorms and related hazard
3 risks, to be coordinated with the mapping of other
4 natural and manmade hazards; and
5 (6) development of improved loss estimation
6 and risk assessment systems for predicting and eval-
7 uating damaging windstorm impacts and for identi-
8 fying, evaluating, and reliably characterizing wind-
9 storm hazards.
10 (d) TECHNOLOGY TRANSFER.—The technology
11 transfer elements of the program shall include—
12 (1) the collection, classification, presentation,
13 and dissemination in a usable form to Federal,
14 State, and local officials, community leaders, the de-
15 sign and construction industry, contractors, home
16 owners, and the general public, of research results,
17 cost-effective construction techniques, loss estimation
18 and risk assessment methodologies, and other perti-
19 nent information regarding windstorm phenomena,
20 the identification of locations and features which are
21 especially susceptible to natural hazard damage,
22 ways to reduce the adverse consequences of natural
23 hazards, and related matters;
24 (2) in coordination with the private sector, aca-
25 demia, and the States, curriculum development and

1 related measures to facilitate the training of employ-
2 ees of the design and construction industry, the in-
3 surance industry, and State and local governments,
4 and other interested persons; and
5 (3) development of an outreach effort to in-
6 crease public and community awareness, including
7 information related to windstorm and related hazard
8 mitigation.
9 (e) IMPLEMENTATION PLAN.—The Interagency
10 Group established under subsection (a) shall refine, in
11 conjunction with appropriate representatives of State and
12 local units of government and private sector organizations,
13 the objective stated in subsection (b), develop measure-
14 ments related to the objective, including emphasis on safe-
15 ty, cost-effectiveness, and affordability, and develop a 10-
16 year implementation plan for achieving the objective with
17 a strategic review of goals and objectives every 3 years,
18 working in coordination with the private sector and State
19 and local government for implementation in all appro-
20 priate instances. Not later than 210 days after the date
21 of the enactment of this Act, the Interagency Group shall
22 submit to the Congress the implementation plan. The plan
23 shall include—
24 (1) a statement of strategic research and devel-
25 opment goals and priorities;

1 (2) plans for the development of improved fore-
2 casting techniques for windstorms, early warning
3 systems, and systems for comprehensive response;
4 (3) plans for the development of a systematic
5 method for collecting an inventory of buildings,
6 building components, and damage to buildings from
7 natural hazards;
8 (4) a strategy to implement the transfer of
9 technology and information to State, county, local,
10 and regional governmental units and the private sec-
11 tor for appropriate implementation of research and
12 development results;
13 (5) provisions for outreach and dissemination,
14 on a timely basis, of—
15 (A) information and technology in a form
16 that is of use to the design professions, the con-
17 struction industry, and other interested parties;
18 and
19 (B) other information and knowledge of in-
20 terest to the public to reduce vulnerability to
21 wind and related hazards;
22 (6) a description of how Federal disaster relief
23 and emergency assistance programs will incorporate
24 research and development results;

1 (7) establishment, consistent with this Act, of
2 goals, priorities, and target dates for implementation
3 of the program;
4 (8) assignment of responsibilities with respect
5 to each element of the program that does not al-
6 ready have a Federal lead agency;
7 (9) a description of plans for cooperation and
8 coordination in all phases of the program with inter-
9 ested governmental entities in all States, particularly
10 those containing areas of high or moderate wind and
11 related hazard risk; and
12 (10) staffing plans for the program and its
13 components.
14 (f) PARTICIPATION.—The implementation plan shall
15 complement existing Federal research programs and shall
16 avoid duplication of existing programs including earth-
17 quake programs whenever possible and assign responsibil-
18 ities to Federal agencies with existing expertise.
19 (g) BUDGET COORDINATION.—The Director shall
20 each year, after consulting with the Interagency Group es-
21 tablished under section 4(a), provide guidance to the other
22 program agencies concerning the preparation of requests
23 for appropriations for activities related to this Act, and
24 shall prepare, in conjunction with the other program agen-
25 cies, an annual program budget to be submitted to the

1 Office of Management and Budget. Each program agency
2 shall include with its annual request for appropriations
3 submitted to the Office of Management and Budget a re-
4 port that—
5 (1) identifies each element of the proposed pro-
6 gram activities of the agency;
7 (2) specifies how each of these activities con-
8 tributes to the program; and
9 (3) states the portion of its request for appro-
10 priations allocated to each element of the program.
11 (h) MANUFACTURED HOUSING STANDARDS.—Noth-
12 ing in this Act supersedes any provision of the National
13 Manufactured Housing Construction and Safety Stand-
14 ards Act of 1974. No design, construction method, prac-
15 tice, technology, material, mitigation methodology, or haz-
16 ard reduction measure of any kind developed under this
17 Act shall be required for a home certified under section
18 616 of the National Manufactured Housing Construction
19 and Safety Standards Act of 1974 (42 U.S.C. 5415), pur-
20 suant to standards issued under such Act, without being
21 subject to the consensus development process and rule-
22 making procedures of that Act.

1 **SEC. 204. NATIONAL ADVISORY COMMITTEE FOR WIND-**
2 **STORM AND RELATED HAZARDS IMPACT RE-**
3 **DUCTION.**

4 (a) ESTABLISHMENT.—A National Advisory Com-
5 mittee shall be established to review progress made under
6 the program established under section 4, advise on any
7 improvements that should be made to that program, and
8 report to the Congress on actions that have been taken
9 to advance the Nation's capability to reduce the impacts
10 of windstorm and related hazards.

11 (b) MEMBERSHIP.—The Advisory Committee shall be
12 composed of no more than 21 members to be appointed
13 by the President (one of whom shall be designated by the
14 President as chair). The members shall include represent-
15 atives of a broad cross-section of interests such as the re-
16 search, technology transfer, architectural, engineering,
17 and financial communities; materials and systems sup-
18 pliers; State, county, and local governments concerned
19 with the reduction of windstorm and related hazards; the
20 residential, multifamily, and commercial sectors of the
21 construction industry; and the insurance industry, and
22 other representatives (not including members of Federal
23 agencies) from areas impacted by windstorms and related
24 hazards.

25 (c) COORDINATION.—The Advisory Committee shall
26 coordinate with existing advisory committees of the Fed-

1 eral Government and of the National Academies of Science
2 and Engineering.
3 (d) ANNUAL REPORT.—The Advisory Committee
4 shall provide a summary report to Congress each year.
5 (e) EXEMPTION.—Section 14 of the Federal Advisory
6 Committee Act shall not apply to the Advisory Committee
7 established under this section.

8 **SEC. 205. ANNUAL REPORT.**

9 The Interagency Group established under section
10 4(a) shall, within 180 days after the end of each fiscal
11 year, submit a report to the Congress describing the status
12 of the windstorm and related hazards reduction program,
13 describing progress achieved during the preceding fiscal
14 year, by government at all levels and by the private sector,
15 toward achieving the objective stated in section 4(b) and
16 implementing the plan developed under section 4(e), and
17 including any amendments to the implementation plan.
18 Each such report shall include any recommendations for
19 legislative and other action the Interagency Group con-
20 siders necessary and appropriate.

21 **SEC. 206. AUTHORIZATION OF APPROPRIATIONS.**

22 There are authorized to be appropriated to carry out
23 activities under this Act $25,000,000 for fiscal year 2004,
24 $50,000,000 for fiscal year 2005, and $100,000,000 for

1 fiscal year 2006 to be distributed among Federal agencies
2 as provided in appropriations Acts.

I

108TH CONGRESS
1ST SESSION

H. R. 2608

To reauthorize the National Earthquake Hazards Reduction Program, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JUNE 26, 2003

Mr. SMITH of Michigan (for himself and Mr. BAIRD) introduced the following bill; which was referred to the Committee on Science, and in addition to the Committee on Resources, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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A BILL

To reauthorize the National Earthquake Hazards Reduction Program, 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 "National Earthquake Hazards Reduction Program Reauthorization Act of 2003".

SEC. 2. DEFINITIONS.

Section 4 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7701 et seq.) is amended by adding at the end the following new paragraphs:

"(8) The term 'Interagency Coordinating Committee' means the Interagency Coordinating Committee on Earthquake Hazards Reduction established under section 5(a).

"(9) The term 'Advisory Committee' means the Advisory Committee established under section 5(a)(5).".

SEC. 3. NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM.

Section 5 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7704(b)) is amended—

(1) by amending subsection (a) to read as follows:

"(a) ESTABLISHMENT.—

"(1) IN GENERAL.—There is established the National Earthquake Hazards Reduction Program.

"(2) PROGRAM ACTIVITIES.—The activities of the Program shall be designed to—

"(A) develop effective measures for earthquake hazards reduction;

"(B) promote the adoption of earthquake hazards reduction measures by Federal, State,

and local governments, national standards and model code organizations, architects and engineers, building owners, and others with a role in planning and constructing buildings and lifelines through—

"(i) grants, contracts, cooperative agreements, and technical assistance;

"(ii) development of standards and guidelines for earthquake hazards reduction for structures and lifelines; and

"(iii) development and maintenance of a repository of information, including technical data, on seismic risk and hazards reduction; and

"(C) improve the understanding of earthquakes and their effects on buildings and lifelines.

"(3) INTERAGENCY COORDINATING COMMITTEE ON EARTHQUAKE HAZARDS REDUCTION.—

"(A) IN GENERAL.—There is established an Interagency Coordinating Committee on Earthquake Hazards Reduction chaired by the Director of the National Institute of Standards and Technology (referred to in this subsection as the 'Director').

"(B) MEMBERSHIP.—The committee shall be composed of the directors of—

"(i) the Federal Emergency Management Agency;

"(ii) the United States Geological Survey;

"(iii) the National Science Foundation;

"(iv) the Office of Science and Technology Policy; and

"(v) the Office of Management and Budget.

"(C) MEETINGS.—The Committee shall meet not less than 3 times a year at the call of the Director.

"(D) PURPOSE AND DUTIES.—The Interagency Coordinating Committee shall oversee the planning, management, and coordination of the Program. The Interagency Coordinating Committee shall—

"(i) develop, not later than 6 months after the date of enactment of this Act, and update periodically—

"(I) a strategic plan that establishes goals and priorities for the Pro-

1 gram activities described under sub-
2 section (a)(2); and
3 "(II) a detailed management plan
4 to implement such strategic plan; and
5 "(ii) develop a coordinated inter-
6 agency budget for the Program that will
7 ensure appropriate balance among the Pro-
8 gram activities described under subsection
9 (a)(2), and submit such budget to the Di-
10 rector of the Office of Management and
11 Budget at the time designated by that of-
12 fice for agencies to submit annual budgets.
13 "(4) ANNUAL REPORT.—The Interagency Co-
14 ordinating Committee shall transmit, at the time of
15 the President's budget request to Congress, an an-
16 nual report to the Committee on Science and the
17 Committee on Resources of the House of Represent-
18 atives, and the Committee on Commerce, Science,
19 and Transportation of the Senate. Such report shall
20 include—
21 "(A) the Program budget for the current
22 fiscal year for each agency that participates in
23 the Program, and for each major goal estab-
24 lished for the Program activities under subpara-
25 graph (3)(A);

1 "(B) the proposed Program budget for the
2 next fiscal year for each agency that partici-
3 pates in the Program, and for each major goal
4 established for the Program activities under
5 subparagraph (3)(A);
6 "(C) a description of the activities and re-
7 sults of the Program during the previous year,
8 including an assessment of the effectiveness of
9 the Program in furthering the goals established
10 in the strategic plan under (3)(A);
11 "(D) a description of the extent to which
12 the Program has incorporated the recommenda-
13 tions of the Advisory Committee; and
14 "(E) a description of activities, including
15 budgets for the current fiscal year and proposed
16 budgets for the next fiscal year, that are carried
17 out by Program agencies and contribute to the
18 Program, but are not included in the Program.
19 "(5) ADVISORY COMMITTEE.—
20 "(A) IN GENERAL.—The Director shall es-
21 tablish an Advisory Committee on Earthquake
22 Hazards Reduction consisting of non-Federal
23 members, including representatives of research
24 and academic institutions, industry, and State
25 and local government, who are qualified to pro-

1 vide advice on earthquake hazards reduction.
2 The recommendations of the Advisory Com-
3 mittee shall be considered by Federal agencies
4 in implementing the Program.
5 "(B) ASSESSMENT.—The Advisory Com-
6 mittee shall assess—
7 "(i) trends and developments in the
8 science and engineering of earthquake haz-
9 ards reduction;
10 "(ii) effectiveness of the Program in
11 carrying out the activities under (a)(2);
12 "(iii) the need to revise the Program;
13 and
14 "(iv) the management, coordination,
15 implementation, and activities of the Pro-
16 gram.
17 "(C) REPORT.—Not later than 1 year
18 after the date of enactment of this Act and at
19 least once every 2 years thereafter, the Advisory
20 Committee shall report to the Director on its
21 findings of the assessment carried out under
22 subparagraph (B) and its recommendations for
23 ways to improve the Program. In developing
24 recommendations, the Committee shall consider
25 the recommendations of the United States Geo-

1 logical Survey Scientific Earthquake Studies
2 Advisory Committee.
3 "(D) FEDERAL ADVISORY COMMITTEE ACT
4 APPLICATION.—Section 14 of the Federal Advi-
5 sory Committee Act (5 App. U.S.C. 14) shall
6 not apply to the Advisory Committee.";
7 (2) in subsection (b)—
8 (A) in paragraph (1)—
9 (i) by striking "Federal Emergency
10 Management Agency" and all that follows
11 through "of the Agency" and inserting
12 "National Institute of Standards and
13 Technology shall have the primary respon-
14 sibility for planning and coordinating the
15 Program. In carrying out this paragraph,
16 the Director of the Institute";
17 (ii) by striking subparagraphs (B) and
18 (C) and redesignating subparagraphs (D)
19 and (E) as subparagraphs (C) and (D), re-
20 spectively;
21 (iii) by inserting after subparagraph
22 (A) the following:
23 "(B) support the development of perform-
24 ance-based seismic engineering tools, and work
25 with appropriate groups to promote the com-

1 mercial application of such tools, through earth-
2 quake-related building codes, standards, and
3 construction practices;"; and
4 (iv) by striking "The principal official
5 carrying out the responsibilities described
6 in this paragraph shall be at a level no
7 lower than that of Associate Director.";
8 and
9 (v) in subparagraph (D), as redesig-
10 nated by clause (ii), by striking "National
11 Science Foundation, the National Insti-
12 tutes of Standards and Technology" and
13 inserting "Federal Emergency Manage-
14 ment Agency, the National Science Foun-
15 dation";
16 (B) in paragraph (2)(A) by striking "In
17 addition to the lead" and all that follows
18 through "Agency" and inserting "The Director
19 of the Federal Emergency Management Agency
20 (in this Act referred to as the 'Agency')";
21 (C) in paragraph (3)—
22 (i) by inserting "and other activities"
23 after "shall conduct research";
24 (ii) in subparagraphs (C) and (D), by
25 striking "the Agency" both places it ap-

pears and inserting "the Director of the Federal Emergency Management Agency and the Director of the National Institute for Standards and Technology";

(iii) in subparagraph (E), by striking "establish, using existing facilities, a Center for the International Exchange of Earthquake Information" and inserting "operate, using the National Earthquake Information Center, a forum for the international exchange of earthquake information";

(iv) in subparagraph (F), by striking "Network" and inserting "System"; and

(v) by inserting after subparagraph (H) the following new subparagraph:

"(I) work with other Program agencies to coordinate Program activities with similar eathquake hazards reduction efforts in other countries, to ensure that the Program benefits from relevant information and advances in those countries."; and

(D) in paragraph (5), by striking "The National" and inserting "In addition to the

lead agency responsibilities described under paragraph (1), the National"; and

(3) in subsection (c)(1), by striking "Agency" and inserting "Interagency Coordinating Committee".

SEC. 4. AUTHORIZATION OF APPROPRIATIONS.

(a) Section 12 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7706) is amended—

(1) in subsection (a), by adding after paragraph (7) the following new paragraph:

"(8) There are authorized to be appropriated to the Federal Emergency Management Agency for carrying out this Act $18,500,000 for fiscal year 2004, $20,500,000 for fiscal year 2005, and $22,500,000 for fiscal year 2006.";

(2) in subsection (b), by adding at the end the following: "There are authorized to be appropriated to the United States Geological Survey for carrying out this Act $80,000,000 for fiscal year 2004, of which not less than $30,000,000 shall be made available for completion of the Advanced National Seismic Research and Monitoring System established under section 13; $83,500,000 for fiscal year 2005, of which not less than $30,000,000 shall be made available for completion of the Advanced National

1 Seismic Research and Monitoring System established
2 under section 13; $93,000,000 for fiscal year 2006,
3 of which not less than $36,000,000 shall be made
4 available for completion of the Advanced National
5 Seismic Research and Monitoring System established
6 under section 13; such sums as may be necessary for
7 fiscal year 2007, of which not less than $36,000,000
8 shall be made available for completion of the Ad-
9 vanced National Seismic Research and Monitoring
10 System established under section 13; and such sums
11 as may be necessary for fiscal year 2008, of which
12 not less than $36,000,000 shall be made available
13 for completion of the Advanced National Seismic Re-
14 search and Monitoring System established under
15 section 13.";
16 (3) in subsection (c), by adding at the end the
17 following: "There are authorized to be appropriated
18 to the National Science Foundation for carrying out
19 this Act $39,000,000 for fiscal year 2004;
20 $44,000,000 for fiscal year 2005; and $47,500,000
21 for fiscal year 2006."; and
22 (4) in subsection (d) by adding at the end the
23 following: "There are authorized to be appropriated
24 to the National Institute of Standards and Tech-
25 nology for carrying out this Act $8,000,000 for fis-

1 cal year 2004; $9,600,000 for fiscal year 2005; and
2 $12,500,000 for fiscal year 2006.".
3 (b) Section 13 of the Earthquake Hazards Reduction
4 Act of 1977 (42 U.S.C. 7707) is amended by striking sub-
5 section (c).
6 (c) Section 14(b) of the Earthquake Hazards Reduc-
7 tion Act of 1977 (42 U.S.C. 7708(b)) is amended by strik-
8 ing paragraph (4) and inserting the following:
9 "(4) $8,000,000 for fiscal year 2004;
10 "(5) $15,000,000 for fiscal year 2005, all of
11 which shall be available for operations and mainte-
12 nance; and
13 "(6) $15,000,000 for fiscal year 2006, all of
14 which shall be available for operations and mainte-
15 nance.".

Section by Section Analysis of H.R. 2608

The National Earthquake Hazards Reduction Program Act of 2003

Introduced by Mr. Smith of Michigan and Mr. Baird of Washington

Section 1. Short Title.

"National Earthquake Hazards Reduction Program Reauthorization Act of 2003"

Section 2. Definitions.

Defines terms used in the text.

Section 3. National Earthquake Hazards Reduction Program.

Reauthorizes the National Earthquake Hazards Reduction Program (NEHRP) to coordinate multi-agency efforts to understand earthquake impact and reduce the hazards associated with earthquakes. This program will develop effective measures for earthquake hazards reduction; promote the adoption of those measures by Federal, State, and local governments, national standards organizations, and other relevant stakeholders; and improve the understanding of earthquakes and their effects on buildings and lifelines.

Establishes an Interagency Coordinating Committee, composed of from the directors of the National Institute of Standards and Technology (NIST), the Federal Emergency Management Agency (FEMA), the United States Geological Survey (USGS), the National Science Foundation (NSF) the Office of Science and Technology Policy, and the Office of Management and Budget (OMB). Designates the Director of NIST as the Chair of the Committee, and tasks the Committee with oversight, planning, management, and coordination of the Program. Requires the Committee to develop, and update periodically, a strategic plan establishing the goals and priorities for the Program, and a management plan for implementation of the strategic plan. Also requires the Committee to develop a single, coordinated, interagency budget for the Program to be submitted to OMB each year prior to the deadline for agency budget submissions.

Directs the Committee to transmit to Congress an annual report on the Program at the time of the President's budget request. Requires the report to include: the Program budget for the current and upcoming fiscal years for each NEHRP agency; a description of the activities of the Program during the previous year, including the effectiveness of the Program in furthering the goals established in the strategic plan; and a description of the extent to which the Program has incorporated the recommendations of the Advisory Committee established in this Section.

Requires the Director of NIST to establish an external advisory committee on earthquake hazards reduction consisting of non-federal members representing research and academic institutions, industry, and State and local government. Tasks the advisory committee with assessing: trends and developments in earthquake hazards reduction science and engineering and the effectiveness of the Program, including the management, coordination, and implementation of the Program.

Requires the advisory committee to report its findings and recommendations to the Director of NIST one year after enactment, and at least once every two years thereafter.

Section 4. Authorization of Appropriations.

Authorizes appropriations for the four NEHRP Agencies: NIST, FEMA, USGS, and NSF. Funding is specifically authorized for two large projects to study earthquakes and monitor earthquake activity: the Network for Earthquake Engineering Simulation (NEES) at NSF and the Advanced National Seismic System (ANSS) at USGS.

Funding levels are in millions of dollars. Total funding authorized for fiscal years 2004-2006 is $516.6 million.

Agency/ Program	FY 2003 (Appropriated)	FY 2004 (Authorized)	FY 2005 (Authorized)	FY 2006 (Authorized)
FEMA	18.2	18.5	20.5	22.5
NIST	2.3	8.0	9.6	12.5
NSF Total	47.1	47.0	59.0	62.5
NSF Base	33.6	39.0	44.0	47.5
NSF NEES	13.5	8.0	15.0	15.0
USGS Total	47.6	80.0	83.5	93.0
USGS Base	43.7	50.0	53.5	57.0
USGS ANSS	3.9	30.0	30.0	36.0
TOTAL	115.2	153.5	172.6	190.5

Note: For ANSS, funding is also authorized for FY 2007 and FY 2008 ($36 million each year).

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