

AMENDMENT TO H.R. 1786
OFFERED BY Rep. Peters (CA)

At the end of the bill, add the following new titles:

1 **TITLE II—EARTHQUAKES**

2 **SEC. 201. SHORT TITLE.**

3 This title may be cited as the “National Earthquake
4 Hazards Reduction Program Reauthorization Act of
5 2013”.

6 **SEC. 202. FINDINGS.**

7 Section 2 of the Earthquake Hazards Reduction Act
8 of 1977 (42 U.S.C. 7701) is repealed.

9 **SEC. 203. DEFINITIONS.**

10 Section 4 of the Earthquake Hazards Reduction Act
11 of 1977 (42 U.S.C. 7703) is amended by striking para-
12 graphs (8) and (9).

13 **SEC. 204. NATIONAL EARTHQUAKE HAZARDS REDUCTION**
14 **PROGRAM.**

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

17 (1) in subsection (a)—

18 (A) by amending paragraph (2) to read as
19 follows:

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

3 “(A) research and develop effective meth-
4 ods, tools, and technologies to reduce the risk
5 posed by earthquakes to the built environment,
6 especially to lessen the risk to existing struc-
7 tures and lifelines;

8 “(B) improve the understanding of earth-
9 quakes and their effects on households, busi-
10 nesses, communities, buildings, structures, and
11 lifelines, through interdisciplinary and multi-
12 disciplinary research that involves engineering,
13 natural sciences, and social sciences; and

14 “(C) facilitate the adoption of earthquake
15 risk reduction measures by households, busi-
16 nesses, communities, local, State, and Federal
17 governments, national standards and model
18 building code organizations, architects and engi-
19 neers, building owners, and others with a role
20 in planning for disasters and planning, con-
21 structing, retrofitting, and insuring buildings,
22 structures, and lifelines through—

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

1 “(ii) development of standards, guide-
2 lines, voluntary consensus standards, and
3 other design guidance for earthquake haz-
4 ards risk reduction for buildings, struc-
5 tures, and lifelines;

6 “(iii) outreach and information dis-
7 semination to communities on location-spe-
8 cific earthquake hazards and methods to
9 reduce the risks from those hazards; and

10 “(iv) development and maintenance of
11 a repository of information, including tech-
12 nical data, on seismic risk and hazards re-
13 duction.”; and

14 (B) by striking paragraphs (3) through
15 (5);

16 (2) by amending subsection (b) to read as fol-
17 lows:

18 “(b) RESPONSIBILITIES OF PROGRAM AGENCIES.—

19 “(1) LEAD AGENCY.—The National Institute of
20 Standards and Technology (in this section referred
21 to as the ‘Institute’) shall be responsible for plan-
22 ning and coordinating the Program. In carrying out
23 this paragraph, the Director of the Institute shall—

24 “(A) ensure that the Program includes the
25 necessary components to promote the imple-

1 mentation of earthquake hazards risk reduction
2 measures by households, businesses, commu-
3 nities, local, State, and Federal governments,
4 national standards and model building code or-
5 ganizations, architects and engineers, building
6 owners, and others with a role in preparing for
7 disasters, or the planning, constructing, retro-
8 fitting, and insuring of buildings, structures,
9 and lifelines;

10 “(B) support the development of perform-
11 ance-based seismic engineering tools, and work
12 with the appropriate groups to promote the
13 commercial application of such tools, through
14 earthquake-related building codes, standards,
15 and construction practices;

16 “(C) ensure the use of social science re-
17 search and findings in informing research and
18 technology development priorities, commu-
19 nicating earthquake risks to the public, devel-
20 oping earthquake risk mitigation strategies, and
21 preparing for earthquake disasters;

22 “(D) coordinate all Federal post-earth-
23 quake investigations; and

24 “(E) when warranted by research or inves-
25 tigative findings, issue recommendations for

1 changes in model codes to the relevant code de-
2 velopment organizations, and report back to
3 Congress on whether such recommendations
4 were adopted.

5 “(2) NATIONAL INSTITUTE OF STANDARDS AND
6 TECHNOLOGY.—In addition to the lead agency re-
7 sponsibilities described under paragraph (1), the In-
8 stitute shall be responsible for carrying out research
9 and development to improve building codes and
10 standards and practices for buildings, structures,
11 and lifelines. In carrying out this paragraph, the Di-
12 rector of the Institute shall—

13 “(A) work, in conjunction with other ap-
14 propriate Federal agencies, to support the de-
15 velopment of improved seismic standards and
16 model codes;

17 “(B) in coordination with other appro-
18 priate Federal agencies, work closely with
19 standards and model code development organi-
20 zations, professional societies, and practicing
21 engineers, architects, and others involved in the
22 construction of buildings, structures, and life-
23 lines, to promote better building practices, in-
24 cluding by—

1 “(i) developing technical resources for
2 practitioners on new knowledge and stand-
3 ards of practice; and

4 “(ii) developing methods and tools to
5 facilitate the incorporation of earthquake
6 engineering principles into design and con-
7 struction practices;

8 “(C) develop tools, technologies, methods,
9 and practitioner guidance to feasibly and cost-
10 effectively retrofit existing buildings and struc-
11 tures to increase their earthquake resiliency;
12 and

13 “(D) work closely with national standards
14 organizations, and other interested parties, to
15 develop seismic safety standards and practices
16 for new and existing lifelines.

17 “(3) FEDERAL EMERGENCY MANAGEMENT
18 AGENCY.—

19 “(A) IN GENERAL.—The Federal Emer-
20 gency Management Agency (in this paragraph
21 referred to as the ‘Agency’), consistent with the
22 Agency’s all hazards approach, shall be respon-
23 sible for facilitating the development and adop-
24 tion of standards, model building codes, and
25 better seismic building practices, developing

1 tools to assess earthquake hazards, promoting
2 the adoption of hazard mitigation measures,
3 and carrying out a program of direct assistance
4 to States and localities to mitigate earthquake
5 risks to buildings, structures, lifelines, and com-
6 munities.

7 “(B) DIRECTOR’S DUTIES.—The Director
8 of the Agency shall—

9 “(i) work closely with other relevant
10 Federal agencies, standards and model
11 building code development organizations,
12 architects, engineers, and other profes-
13 sionals, to facilitate the development and
14 adoption of standards, model codes, and
15 design and construction practices to in-
16 crease the earthquake resiliency of new
17 and existing buildings, structures, and life-
18 lines in the—

19 “(I) preparation, maintenance,
20 and wide dissemination of design
21 guidance, model building codes and
22 standards, and practices to increase
23 the earthquake resiliency of new and
24 existing buildings, structures, and life-
25 lines;

1 “(II) development of perform-
2 ance-based design guidelines and
3 methodologies supporting model codes
4 for buildings, structures, and lifelines;
5 and

6 “(III) development of methods
7 and tools to facilitate the incorpora-
8 tion of earthquake engineering prin-
9 ciples into design and construction
10 practices;

11 “(ii) develop tools, technologies, and
12 methods to assist local planners, and oth-
13 ers, to model and predict the potential im-
14 pact of earthquake damage in seismically
15 hazardous areas; and

16 “(iii) support the implementation of a
17 comprehensive earthquake education and
18 public awareness program, including the
19 development of materials and their wide
20 dissemination to all appropriate audiences,
21 and support public access to locality-spe-
22 cific information that may assist the public
23 in preparing for, mitigating against, re-
24 sponding to, and recovering from earth-
25 quakes and related disasters.

1 “(C) STATE ASSISTANCE GRANT PRO-
2 GRAM.—The Director of the Agency shall oper-
3 ate a program of grants and assistance to en-
4 able States to develop mitigation, preparedness,
5 and response plans, compare inventories and
6 conduct seismic safety inspections of critical
7 structures and lifelines, update building and
8 zoning codes and ordinances to enhance seismic
9 safety, increase earthquake awareness and edu-
10 cation, and encourage the development of
11 multistate groups for such purposes. The Direc-
12 tor shall operate such programs in coordination
13 with the all hazards mitigation and prepared-
14 ness programs authorized by the Robert T.
15 Stafford Disaster Relief and Emergency Assist-
16 ance Act (42 U.S.C. 5121 et seq.), in order to
17 ensure that such programs are as consistent as
18 possible. In order to qualify for assistance
19 under this subparagraph, a State must—

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

23 “(ii) provide 50 percent of the costs of
24 the activities for which assistance is being
25 given, except that the Director may lower

1 or waive the cost-share requirement for
2 these activities in exceptional cases of eco-
3 nomic hardship; and

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

6 “(D) FEDERAL EMERGENCY MANAGEMENT
7 AGENCY ROLE AND RESPONSIBILITY.—Nothing
8 in this Act shall be construed to diminish the
9 role and responsibility of the Federal Emer-
10 gency Management Agency with regard to all
11 hazards preparedness, response, recovery, and
12 mitigation.

13 “(4) UNITED STATES GEOLOGICAL SURVEY.—
14 The United States Geological Survey (in this para-
15 graph referred to as the ‘Survey’) shall conduct re-
16 search and other activities necessary to characterize
17 and identify earthquake hazards, assess earthquake
18 risks, monitor seismic activity, and provide real-time
19 earthquake information. In carrying out this para-
20 graph, the Director of the Survey shall—

21 “(A) conduct a systematic assessment of
22 the seismic risks in each region of the Nation
23 prone to earthquakes, including, where appro-
24 priate, the establishment and operation of in-
25 tensive monitoring projects on hazardous faults,

1 detailed seismic hazard and risk studies in
2 urban and other developed areas where earth-
3 quake risk is determined to be significant, and
4 engineering seismology studies;

5 “(B) work with officials of State and local
6 governments to ensure that they are knowledge-
7 able about the specific seismic risks in their
8 areas;

9 “(C) develop standard procedures, in con-
10 sultation with the Director of the Federal
11 Emergency Management Agency, for issuing
12 earthquake alerts, including aftershock
13 advisories, and, to the extent possible, ensure
14 that such alerts are compatible with the Inte-
15 grated Public Alerts and Warning System pro-
16 gram authorized by section 202 of the Robert
17 T. Stafford Disaster Relief and Emergency As-
18 sistance Act (42 U.S.C. 5132);

19 “(D) issue when justified, and notify the
20 Director of the Federal Emergency Manage-
21 ment Agency of, an earthquake prediction or
22 other earthquake advisory, which may be evalu-
23 ated by the National Earthquake Prediction
24 Evaluation Council;

1 “(E) operate, as integral parts of the Ad-
2 vanced National Seismic Research and Moni-
3 toring System, a National Earthquake Informa-
4 tion Center and a national seismic network, to-
5 gether providing timely and accurate informa-
6 tion on earthquakes worldwide;

7 “(F) support the operation of regional seis-
8 mic networks in areas of higher seismic risk;

9 “(G) develop and support seismic instru-
10 mentation of buildings and other structures to
11 obtain data on their response to earthquakes
12 for use in engineering studies and assessment
13 of damage;

14 “(H) monitor and assess Earth surface de-
15 formation as it pertains to the evaluation of
16 earthquake hazards and impacts;

17 “(I) work with other Program agencies to
18 maintain awareness of, and where appropriate
19 cooperate with, earthquake risk reduction ef-
20 forts in other countries, to ensure that the Pro-
21 gram benefits from relevant information and
22 advances in those countries;

23 “(J) maintain suitable seismic hazard
24 maps in support of building codes for structures
25 and lifelines, including additional maps needed

1 for performance-based design approaches, and,
2 to the extent possible, ensure that such maps
3 are developed consistent with the multihazard
4 advisory maps authorized by section 203(k) of
5 the Robert T. Stafford Disaster Relief and
6 Emergency Assistance Act (42 U.S.C. 5133(k));

7 “(K) conduct a competitive, peer-reviewed
8 process which awards grants and cooperative
9 agreements to complement and extend related
10 internal Survey research and monitoring activi-
11 ties; and

12 “(L) operate, in cooperation with the Na-
13 tional Science Foundation, a Global Seis-
14 mographic Network for detection of earth-
15 quakes around the world and research into fun-
16 damental earth processes.

17 “(5) NATIONAL SCIENCE FOUNDATION.—The
18 National Science Foundation shall be responsible for
19 funding basic research that furthers the under-
20 standing of earthquakes, earthquake engineering,
21 and community preparation and response to earth-
22 quakes. In carrying out this paragraph, the Director
23 of the National Science Foundation shall—

24 “(A) support multidisciplinary and inter-
25 disciplinary research that will improve the resil-

1 iency of communities to earthquakes, includ-
2 ing—

3 “(i) research that improves the safety
4 and performance of buildings, structures,
5 and lifelines, including the use of the large-
6 scale experimental and computational fa-
7 cilities of the George E. Brown, Jr. Net-
8 work for Engineering Earthquake Simula-
9 tion;

10 “(ii) research to support more effec-
11 tive earthquake mitigation and response
12 measures, such as developing better knowl-
13 edge of the specific types of vulnerabilities
14 faced by segments of the community vul-
15 nerable to earthquakes, addressing the bar-
16 riers they face in adopting mitigation and
17 preparation measures, and developing
18 methods to better communicate the risks of
19 earthquakes and to promote mitigation;
20 and

21 “(iii) research on the response of com-
22 munities, households, businesses, and
23 emergency responders to earthquakes;

1 “(B) support research to understand
2 earthquake processes, earthquake patterns, and
3 earthquake frequencies;

4 “(C) encourage prompt dissemination of
5 significant findings, sharing of data, samples,
6 physical collections, and other supporting mate-
7 rials, and development of intellectual property
8 so research results can be used by appropriate
9 organizations to mitigate earthquake damage;

10 “(D) work with other Program agencies to
11 maintain awareness of, and where appropriate
12 cooperate with, earthquake risk reduction re-
13 search efforts in other countries, to ensure that
14 the Program benefits from relevant information
15 and advances in those countries; and

16 “(E) include to the maximum extent prac-
17 ticable diverse institutions, including Histori-
18 cally Black Colleges and Universities, Hispanic-
19 serving institutions, Tribal Colleges and Univer-
20 sities, Alaska Native-serving institutions, and
21 Native Hawaiian-serving institutions.”; and

22 (3) in subsection (c)(1) by inserting “on Nat-
23 ural Hazards Risk Reduction established under sec-
24 tion 301 of the Natural Hazards Risk Reduction Act

1 of 2013” after “Interagency Coordinating Com-
2 mittee”.

3 **SEC. 205. POST-EARTHQUAKE INVESTIGATIONS PROGRAM.**

4 Section 11 of the Earthquake Hazards Reduction Act
5 of 1977 (42 U.S.C. 7705e) is amended by striking “There
6 is established” and all that follows through “conduct of
7 such earthquake investigations.” and inserting “The Pro-
8 gram shall include a post-earthquake investigations pro-
9 gram, the purpose of which is to investigate major earth-
10 quakes so as to learn lessons which can be applied to re-
11 duce the loss of lives and property in future earthquakes.
12 The lead Program agency, in consultation with each Pro-
13 gram agency, shall organize investigations to study the im-
14 plications of the earthquakes in the areas of responsibility
15 of each Program agency. The investigations shall begin
16 as rapidly as possible and may be conducted by grantees
17 and contractors. The Program agencies shall ensure that
18 the results of the investigations are disseminated widely.”.

19 **SEC. 206. AUTHORIZATION OF APPROPRIATIONS.**

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

23 (1) by adding at the end of subsection (a) the
24 following:

1 “(9) There are authorized to be appropriated to the
2 Federal Emergency Management Agency for carrying out
3 this Act—

4 “(A) \$10,238,000 for fiscal year 2013;

5 “(B) \$10,545,000 for fiscal year 2014;

6 “(C) \$10,861,000 for fiscal year 2015;

7 “(D) \$11,187,000 for fiscal year 2016; and

8 “(E) \$11,523,000 for fiscal year 2017.”;

9 (2) by adding at the end of subsection (b) the
10 following:

11 “(3) There are authorized to be appropriated to the
12 United States Geological Survey for carrying out this
13 Act—

14 “(A) \$90,000,000 for fiscal year 2013, of which
15 \$36,000,000 shall be made available for completion
16 of the Advanced National Seismic Research and
17 Monitoring System;

18 “(B) \$92,100,000 for fiscal year 2014, of which
19 \$37,000,000 shall be made available for completion
20 of the Advanced National Seismic Research and
21 Monitoring System;

22 “(C) \$94,263,000 for fiscal year 2015, of which
23 \$38,000,000 shall be made available for completion
24 of the Advanced National Seismic Research and
25 Monitoring System;

1 “(D) \$96,491,000 for fiscal year 2016, of which
2 \$39,000,000 shall be made available for completion
3 of the Advanced National Seismic Research and
4 Monitoring System; and

5 “(E) \$98,786,000 for fiscal year 2017, of which
6 \$40,000,000 shall be made available for completion
7 of the Advanced National Seismic Research and
8 Monitoring System.”;

9 (3) by adding at the end of subsection (c) the
10 following:

11 “(3) There are authorized to be appropriated to the
12 National Science Foundation for carrying out this Act—

13 “(A) \$64,125,000 for fiscal year 2013;

14 “(B) \$66,049,000 for fiscal year 2014;

15 “(C) \$68,030,000 for fiscal year 2015;

16 “(D) \$70,071,000 for fiscal year 2016; and

17 “(E) \$72,173,000 for fiscal year 2017.”; and

18 (4) by adding at the end of subsection (d) the
19 following:

20 “(3) There are authorized to be appropriated to the
21 National Institute of Standards and Technology for car-
22 rying out this Act—

23 “(A) \$7,000,000 for fiscal year 2013;

24 “(B) \$7,700,000 for fiscal year 2014;

25 “(C) \$7,931,000 for fiscal year 2015;

1 “(D) \$8,169,000 for fiscal year 2016; and

2 “(E) \$8,414,000 for fiscal year 2017.”.

3 (b) CONFORMING AMENDMENT.—Section 14 of the
4 National Earthquake Hazards Reduction Act of 1977 (42
5 U.S.C. 7708) is amended—

6 (1) by striking “(a) ESTABLISHMENT.—”; and

7 (2) by striking subsection (b).

8 **TITLE III—FIRE RESEARCH**
9 **PROGRAM**

10 **SEC. 301. FIRE RESEARCH PROGRAM.**

11 Section 16(a)(1) of the National Institute of Stand-
12 ards and Technology Act (15 U.S.C. 278f(a)(1)) is
13 amended—

14 (1) in subparagraph (D), by inserting “fires at
15 the wildland-urban interface,” after “but not limited
16 to,”; and

17 (2) in subparagraph (E), by inserting “fires at
18 the wildland-urban interface,” after “types of fires,
19 including”.

