

FEMA Statutory Implementation Activities under the National Earthquake Hazards Reduction Program

Presentation to the NEHRP Advisory Committee on
Earthquake Hazards Reduction

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FEMA's Role in NEHRP

- Implementation and program delivery needs a coordinated approach
- NEHRP agencies work together at all levels to transfer technology to customers
- The Goal: Increased protection through risk awareness
- Shared accountability



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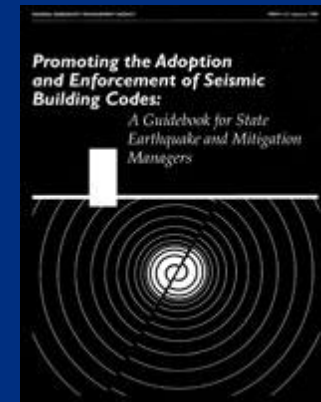
FEMA's Role in NEHRP

- FEMA turns R&D results into loss reduction measures
- FEMA leads efforts on outreach, education and training
- FEMA has a long history of assisting States with earthquake mitigation
- Under the NEHRP reauthorization, Congress has mandated nine specific areas of program responsibility for FEMA



FEMA's NEHRP Responsibilities:

1. Work closely with national standards and model building code organizations to promote the implementation of research results.
 - One of the first Federal agencies to recognize the importance of codes and work within the process
 - We helped develop the seismic provisions of the first International Codes
 - Jointly sponsored several technical publications with the ICC.
 - ICC is helping distribute many of these to its members



FEMA's NEHRP Responsibilities:

2. Promote better building practices within the building design and construction industry including architects, engineers, contractors, builders, and inspectors.



FEMA has developed and disseminated critically important design and construction publications that encourage better building



FEMA's NEHRP Responsibilities:

3. Operate a state grants and assistance program to fund risk reduction activities, and form multi-State groups.
 - Preparedness Directorate administers the Emergency Management Preparedness Grants Program (EMPG)
 - We are working to increase visibility of mitigation activities that address earthquakes
 - We assist States through support of multi-State Consortia, such as WSSPC



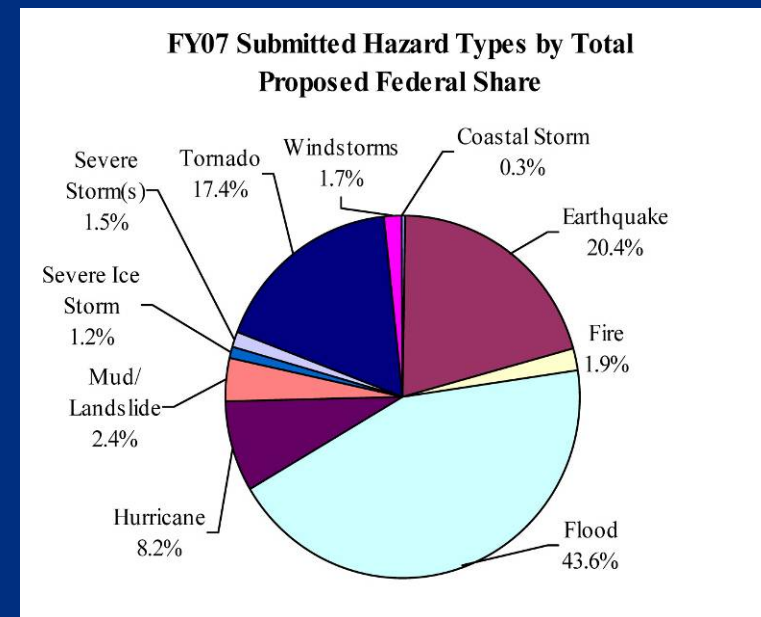
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FEMA's NEHRP Responsibilities:

3. Continued.

- FEMA operates multi-hazard grant programs to reduce risk from earthquake and other hazards:
 - Post-disaster Hazard Mitigation Grant Program (HMGP)
 - Pre-Disaster Mitigation (PDM)

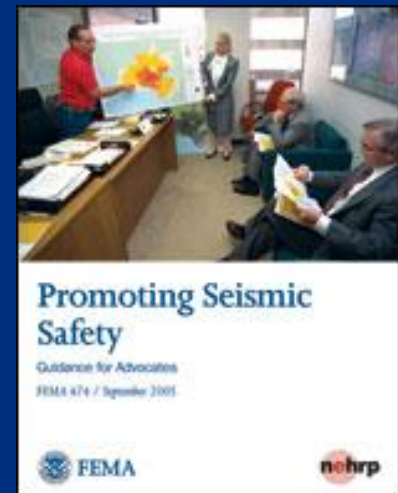
In FY07, 20% of PDM Applications and almost ½ of PDM funds have gone to earthquake-related projects



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FEMA's NEHRP Responsibilities:

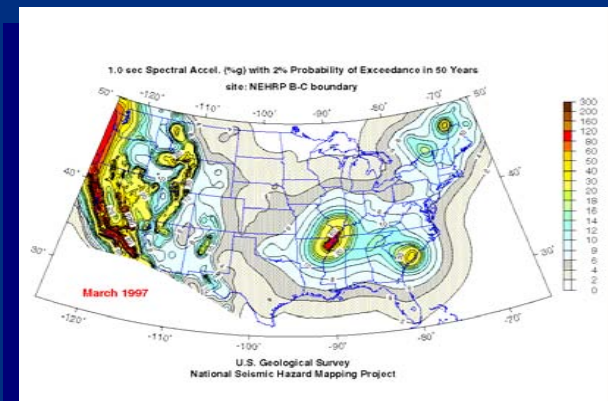
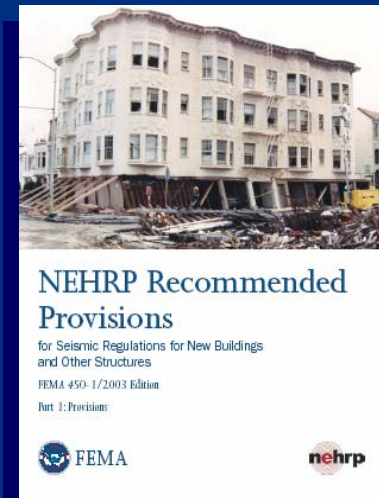
4. Support implementation of an earthquake education and public awareness program.
 - FEMA products support education and awareness
 - Our website's earthquake hazard section includes many useful publications.
 - Regional Offices and Multi-State Consortia support State earthquake awareness activities
 - FEMA provides various training opportunities
 - We sponsor conferences to encourage transfer of information
 - FEMA earthquake awareness booth used to disseminate our publications



FEMA's NEHRP Responsibilities:

5. Help prepare, maintain, and disseminate seismic resistant design guidance and related information on building codes, standards, and practices.

- FEMA technical guidance is the basis of the Nation's model building codes and standards
- FEMA works closely with USGS on seismic design maps, that are then adopted into code
- FEMA has developed many publications on seismic resistant design and construction issues

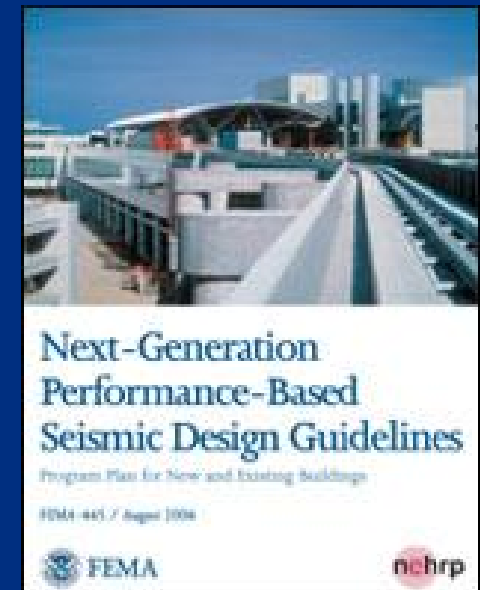


FEMA's NEHRP Responsibilities:

5. Continued.

FEMA is leading the development of the next-generation of Performance-Based Seismic Design Guidelines

- FEMA funded project with NSF, NIST & USGS
- Phase 1: Develop performance assessment
 - Currently in second year of 5 year effort
- Phase 2: Develop Seismic Design Guidelines
 - Will allow stakeholders to select performance criteria for new and existing buildings
- FEMA's work within NEHRP will reduce earthquake losses



FEMA's NEHRP Responsibilities:

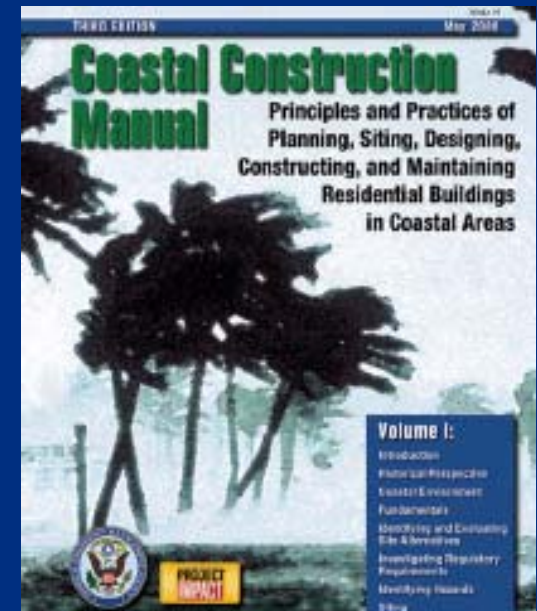
6. Develop, coordinate, and execute, as needed, the National Response Plan and support the development of State and local plans.
 - FEMA Mitigation Directorate is developing a Disaster Operations Plan including the concept of an Earthquake Liaison Team
 - Disaster Operations Directorate is conducting a catastrophic planning initiative for the New Madrid area that runs through 2012 and a separate initiative for Southern California that begins this year
 - Mitigation Directorate has a Regional and Disaster Support Branch to provide overall mitigation support during disasters



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FEMA's NEHRP Responsibilities:

7. Combine measures for earthquake hazards reduction with measures for reduction of other hazards including performance-based design approaches.
 - FEMA produces multi-hazard publications that address earthquakes in context of other hazards, including:
 - The Risk Management Series - multi-hazard guidance for all hazards, including man-made hazards
 - FEMA Coastal Construction Manual - includes seismic design criteria



FEMA's NEHRP Responsibilities:

8. Provide preparedness, response, and mitigation recommendations to communities after an earthquake prediction or other advisory by the USGS National Earthquake Prediction Evaluation Council.
 - FEMA works closely with USGS and the National Earthquake Prediction Evaluation Council (NEPEC) and will provide input when they get to these issues
 - We have worked with the California Earthquake Prediction Evaluation Council at the Regional level



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FEMA's NEHRP Responsibilities:

9. Finally, FEMA must establish demonstration projects on earthquake hazard mitigation.
 - FEMA is undertaking a demonstration project to develop real time linkage between HAZUS and the USGS ShakeMap
 - Will allow for real time loss estimations based on actual ground motions produced automatically following an event
 - The first project is underway in Seattle
 - A second project is starting in Salt Lake City
 - The goal of the project to have the capability to transfer methodologies, software, and hardware to other cities



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The Role of NEHRP in Reducing Losses

- The Federal government alone cannot solve the problem
- It is at the local community level where mitigation must take place
- Local communities can reduce their earthquake risk by:
 - Assessing risk and developing appropriate plans
 - Adopt policies and practices to regulate development in hazardous areas
 - Involving the private sector in loss reduction activities
 - Adoption and enforcement of a state-of-the-art building code



The Role of Building Codes in NEHRP

- Building codes as an effective mitigation tool
- Current Congressional activity in support building code grants
- Documented benefits of building code enforcement
- Codes only work when building code officials are:
 - properly funded and supported by the community
 - properly trained to enforce all of the building code

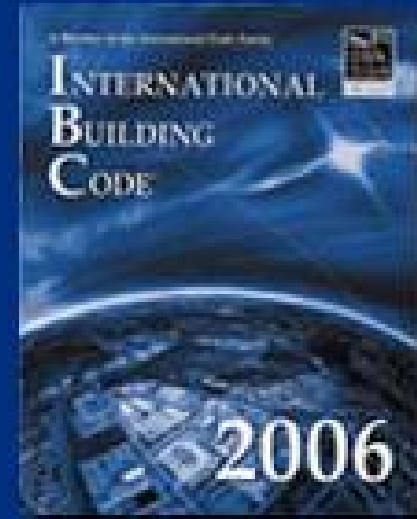


How Can Codes be improved?

- With adoption by all 50 States, the ICC is now in a unique position to help reduce this nation's losses

Some possible areas of NEHRP/ICC cooperation include:

- Discourage modification of the model code
 - States and communities have deleted critical portions
- Improve training of code officials and inspectors
 - A Seismic Certification Program would help enforcement
- Support by local communities
 - Many local code departments do not have enough funding



It's a Team Effort

- Reducing earthquake losses is a team effort
- NEHRP provides the information and the tools to reduce losses
- Local communities are responsible to make mitigation happen





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