

## Advisory Committee on Earthquake Hazards Reduction National Earthquake Hazards Reduction Program

May 19, 2016

The Honorable Willie E. May  
Director  
National Institute of Standards and Technology  
Building 101, Room A1134  
100 Bureau Drive  
Gaithersburg, MD 20899-1000

Reference: NEHRP-ACEHR 2016 Interim Report

Dear Dr. May:

We submit the following comments to you and the Interagency Coordinating Committee (ICC) on the effectiveness of the National Earthquake Hazards Reduction Program (NEHRP). This is an interim report as part of the charter to the Advisory Committee on Earthquake Hazards Reduction Program (ACEHR) to report biennially on our assessment of NEHRP. This interim report supplements the more detailed report we submitted on September 30, 2015. These comments are based on a meeting of the ACEHR held March 3-4, 2016.

Our focus with this interim report is higher-level questions that the ICC and NEHRP agency leaders should address, underscoring key observations raised in the September 30, 2015 report. As stated in that report, much has been accomplished in the nearly 40 years since NEHRP began in 1977. Yet, earthquakes remain a significant threat to the people and property in our nation. It is just a matter of time before a major damaging earthquake, potentially coupled with a devastating tsunami, strikes in the United States.

ACEHR reports of the past five years have documented the fact that federal efforts to address these threats have waned. The initiatives spurred by the reauthorization of NEHRP in 2004 are outdated. The annual appropriations that have sustained NEHRP fall woefully short in comparison to what a comprehensive national program requires, as identified by the NEHRP strategic plan in 2008 and the 2011 National Research Council Report, *National Earthquake Resilience: Research, Implementation, and Outreach* (NRC 2011). The coordination among the key NEHRP agencies is far more piecemeal than necessary to carry out a national program of earthquake hazards reduction.

The response we hear is that limited funds undermine the ability to make substantial progress in advancing earthquake resilience. Yet the number of people who are at risk from the impacts of a potential earthquake has dramatically increased with some 143 million at risk. We recognize the funding constraints and appreciate the hard work of dedicated NEHRP agency staff despite these constraints. Nonetheless, four questions loom that need to be addressed by the ICC and NEHRP agency leaders:



1. **What is the future of NEHRP?** The ICC should renew consideration of the future of NEHRP, how the NEHRP agencies can work together to move the Program ahead, and of the commitments of individual agencies to advancing NEHRP efforts as they relate to other agency priorities. In prior decades, the ICC members had significant roles in advancing commitments of NEHRP agencies, harnessing political support and working collectively on budget issues and policy decisions about future directions.
2. **What are the key gaps in the nation's earthquake resilience?** As discussed in the September 30, 2015 ACEHR report, much evidence suggests there is a sizeable gap in implementing earthquake hazard reduction measures across the nation. Future directions for NEHRP should be based on an assessment of the nation's risk reduction progress to date and the remaining gaps. A detailed national and regional snapshot of the earthquake resilience of the national and relevant states, cities, and other entities is essential for establishing future priorities. This assessment could be a critical component of a long overdue reauthorization of the NEHRP.
3. **How can NEHRP program coordination be improved?** The structural impediments to NEHRP coordination due to different funding mechanisms, agency budgetary procedures, and different agency priorities provide inevitable constraints. Nonetheless, the ICC is charged with high-level coordination of NEHRP agency efforts. While there are many examples of bilateral agency coordination, the fact remains that overall coordination is a continuing issue that needs to be addressed by the ICC.
4. **How can implementation of advances in NEHRP research be advanced?** The 2004 reauthorization of NEHRP highlighted the need to substantially advance the application of knowledge about earthquake risk reduction. While notable efforts have been made at the federal level, including the recent Executive Order considering federal buildings, progress among states, localities, tribes, and private sector organizations lags considerably. A national assessment will document these gaps, but leaves open development of new strategies for advancing implementation efforts.

Answers to these questions will provide a basis for revitalizing NEHRP and for integrating earthquake resilience efforts with the growing national interest in multi-hazard and community-scale resilience. Such revitalization is essential for a renewed, national effort involving sustained investments in seismic monitoring and engineering research, public education and awareness about earthquake hazards, seismic code adoption and implementation for new and existing buildings, critical infrastructure and lifeline systems, and leadership to ensure that there is a continuum of seismic expertise for generations to come.

Submitted on behalf of the ACEHR committee members who fully endorse these comments and the September 30, 2015 report.

Respectfully,

  
Signed by Laurie A. Johnson

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