

**National Earthquake Hazards Reduction Program  
Advisory Committee on Earthquake Hazards Reduction  
National Institute of Standards and Technology  
Gaithersburg, Maryland  
March 25, 2009**

**Meeting Summary**

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**Advisory Committee Members:**

Chris Poland, Chair	Degenkolb Engineers
Walter Arabasz	University of Utah
James Beavers	James E. Beavers Consultants
Jonathan Bray	University of California, Berkeley
Richard Eisner	Fritz Institute
Ronald Hamburger*	Simpson Gumpertz & Heger, Inc.
James Harris	J. R. Harris and Company
Howard Kunreuther*	University of Pennsylvania
Michael Lindell	Texas A&M University
Thomas O'Rourke	Cornell University
Paul Somerville*	URS Corporation
Anne vonWeller	Chief Building Official, Murray City, Utah
Yumei Wang	Oregon Department of Geology and Mineral Industries
Sharon Wood	University of Texas at Austin
Brent Woodworth*	Global Crisis Services, Inc.
Mark Zoback*	Stanford University (SESAC ex-officio liaison)

\*not in attendance

**NEHRP ICC Member-Agency Representatives and NIST Support:**

Shyam Sunder	NIST, Building and Fire Research Laboratory Director, ACEHR Designated Federal Official
Edward Laatsch	FEMA
Joy Pauschke	NSF
David Applegate	USGS
Jack Hayes	NIST, NEHRP Secretariat
Tina Faecke	NIST, NEHRP Secretariat
Ugo Morelli	FEMA Emeritus, NEHRP Secretariat
Francoise Arsenault	BRI Consulting, NEHRP Secretariat

## **Guests:**

Elizabeth Duffy	Seismological Society of America
Bridgett Glynn	Lewis-Burke Associates, LLC on behalf of CalTech
Hoyt Jeter	Eagle Eye Consulting Eng, P.S.
Susan Tubbesing	Earthquake Engineering Research Institute

## **Summary of Discussions**

### **I. Call to Order**

Chris Poland, chair of the Advisory Committee on Earthquake Hazards Reduction (ACEHR), welcomed attendees to the conference-call meeting and reviewed the agenda.

### **II. Roll Call**

Poland asked the meeting participants to state their names for the record. . Poland thanked everyone for participating. He stated that the discussion would be limited to ACEHR members and representatives from the NEHRP agencies. Other participants would be permitted to comment during the public comment period at 3:45 p.m.

### **III. Budget Update**

Poland asked the NEHRP agency representatives for an update on their Fiscal Year (FY) 2009 budgets.

Jack Hayes reported that NIST will approximately double its NEHRP funding in FY 2009. The increase in funding will be designated for research. NIST is sending out a solicitation for new staff with structural and geotechnical expertise. Shyam Sunder added that NIST received an overall increase in FY 2009, although it was somewhat less than the President's request. Within NIST, a decision was made to provide NEHRP with a significant increase, resulting in an approximate tripling of NIST's earthquake research activities.

Joy Pauschke reported she has not received the final FY 2009 budget figures for NSF's earthquake programs.

David Applegate reported that the Global Seismographic Network (GSN) and the Earthquake Hazards Program, two line items for NEHRP, were scheduled for significant cuts in the original 2009 budget request, but the funds have been restored in the Omnibus appropriation. In addition, USGS will receive a \$1 million increase for the earthquake component of its multi-hazard initiative and a \$1 million increase for GSN. USGS is in the process of clarifying a \$500,000 earmark that the Arkansas congressional delegation appended for a seismological laboratory at the University of Arkansas Little Rock. Funds for USGS earthquake and volcano monitoring were also included in the \$140 million that the Survey received in the stimulus bill, but the

amount that will go to these purposes has not yet been finalized by the White House Office of Management and Budget. The stimulus funds will be used to implement the modernization component of ANSS rather than to add new stations since there is no provision for increased out-year funding for operations and maintenance. It will also support upgrades for GSN and geodetic monitoring

Ed Laatsch reported that FEMA, which actually received its 2009 appropriation in October 2008, received a modest increase in FY 2009 for re-establishing the state grants program, which will be awarded in the next few months.

#### **IV. Letter to the ICC on NEHRP Reauthorization**

ACEHR Chair Poland opened discussion on the proposed ACEHR letter to the NEHRP Interagency Coordinating Committee (ICC) regarding the anticipated upcoming reauthorization bill.

A committee member asked if the letter to the ICC should address the authorization of appropriation language in the NEHRP reauthorization for ANSS and the George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES). The members agreed to revisit this question after discussion of the recommendations.

Poland asked for comments on the introductory paragraphs. There were none. He then asked for comments on the body of the letter, beginning with *Recommendation #1, Change the agency responsible for leading post-earthquake investigations to NIST*. One member commented that the recommendations are not ranked. As a result, the impression may be given that the first recommendation is the top priority. He also suggested deleting the third and fourth paragraphs under Recommendation #1. Another member pointed out that it was decided during the last conference-call that the committee should explain its rationale for the recommendations. The third paragraph adds valuable information on the NIST role. It is also important to explain that USGS never sought the responsibility for post-earthquake investigations, and that USGS agrees with the recommendation.

After further discussion, the committee agreed to retain the third paragraph and to delete the fourth paragraph. The committee also agreed to change “reconnaissance” to “post-earthquake” in the second paragraph.

The committee accepted edits to clarify language in the opening paragraph of *Recommendation #2, Add an Interagency Working Group*. An agency representative commented that the last sentence of the first paragraph is confusing. The committee agreed to strike the reference to “matured,” simply stating that there are several other agencies that contribute to the overall purpose of NEHRP.

Poland explained that the rationale behind the second and third paragraphs is the need to coordinate the many activities of the federal agencies and the numerous standards and criteria they have created. An agency representative commented that another group is not required. The Interagency Committee on Seismic Safety in Construction (ICSSC), which accomplished much

of this work in its early days, should be reconvened. Poland remarked that the ICSSC focused on federal buildings rather than research. His sense is that the ICSSC is not the appropriate group to address research. The same agency representative noted that ICSSC Subcommittee 3 both conducted and published research. This role can continue, depending on the leadership of the ICSSC and the charges that it is given.

Another agency representative concurred that a separate group should not be established if it would be possible to re-establish the ICSSC. As NEHRP goes forward, it will be important to reinvigorate and expand the ICSSC, which is chaired by the Director of NIST or his designee. Poland asked about linkages between the ICSSC and NEHRP. An agency representative stated that the ICSSC was always an integral part of NEHRP, but has been dormant for about 6 years. He also pointed out that the list of agencies in Recommendation #2 mirrors those agencies that served on the ICSSC, with the exception of the Department of Homeland Security.

An ACEHR member asked about the status of the National Earthquake Program (NEP). An agency representative responded that the NEP was intended to be a much broader version of NEHRP, but the concept was never realized.

Poland suggested adding a sentence to the end of the recommendation that the role of the ICSSC could be expanded to accommodate the recommendation. A member remarked that the committee may want to step back from the recommendation and only express the need; the federal agencies can decide how best to address that need. The committee agreed to revisit Recommendation #2 after discussing the other recommendations.

The committee agreed that ***Recommendation #3, Enhance collaboration and advancements in lifeline engineering***, is very concise and well-written. There were no other comments.

Pauschke called everyone's attention to a new NSF research solicitation, NSF 09-545, "Engineering Research Centers (ERC) Partnerships in Transforming Research, Education and Technology." A new Engineering Research Center will be established under the solicitation on "Complex, Coupled Physical Infrastructure Systems under Stress."

For ***Recommendation #4, Charge NEHRP agencies to support interdisciplinary research activities***, Poland asked about deleting references to the Earthquake Engineering Research Centers (EERCs) and focusing on interdisciplinary activities. One member recommended adding language to the second paragraph on the Engineering Directorate (the new text was e-mailed to Tina Faecke during the meeting). He also recommended stating that the EERCs are "well suited" rather than "best suited." The author of the recommendation remarked that the committee does believe that the EERCs did a good job in the first 10 years, and can serve as a model for similar future activities. The author of the new text pointed out that not everyone agrees with this, and the letter should not include this endorsement. The value of interdisciplinary research must be emphasized, but the committee does not need to validate the EERCs.

Faecke replaced the two paragraphs in Recommendation #4 with new text. After reviewing the new text, the members decided to retain the original text. The committee agreed that the EERCs have had successes and that ACEHR should not push for a complete and systematic independent

assessment. The members agreed only to change “best suited” to “well suited.”

An agency representative remarked that ***Recommendation #5, Charge the Office of Science and Technology Policy, Executive Office of the President, with soliciting support from other agencies for the NEES***, will not accomplish much without research funding. He does not believe that other agencies are funding research that could be performed by NEES. Poland stated that he understands this point. However, the National Science and Technology Council (NSTC) Subcommittee on Disaster Reduction (SDR) Grand Challenges for Disaster Reduction Implementation Plan specifically refers to NEES. An agency representative noted that the Grand Challenges emphasize that NEES is an important resource, similar to ANSS, but does not specify any one agency role.

A member asked about incorporating Recommendation #5 into Recommendation #2. Another member stated that the two recommendations are clearly different and should not be merged. Instead, it was suggested that Recommendation #5 follow Recommendation #2, and Recommendation #3 should become Recommendation #2 (the recommendation on lifelines). After further discussion, the committee agreed to move Recommendation #5 after Recommendation #2 and to move Recommendation #3 after Recommendation #1. The members also agreed to rename the title of Recommendation #2 to “Promote synergistic activities” and change “needed” to “available” in the first paragraph of Recommendation #5.

For ***Recommendation #6, Task USGS to continue the development and sponsorship of multi-hazard demonstration projects***, a member asked if the committee should focus more on multi-hazard activities. Poland asked that this issue be deferred until the next meeting because it will require a significant amount of time to discuss. There was general agreement among the members that NEHRP should be an advocate on multi-hazard demonstration projects. One member commented that this position should not be watered down by taking away the responsibility from USGS. The committee agreed that the paragraph should begin with “NEHRP should encourage the development and sponsorship of multi-hazard demonstration projects...” and then use USGS as an example. The committee also agreed that the title should be reworded for consistency, *i.e.*, delete “Task USGS.”

The committee discussed the plan for finalizing the letter. Poland noted that Congress will hold hearings on the NEHRP reauthorization in June. Sunder stated that the new Director of OSTP was confirmed last week. A meeting of the ICC can now be convened with the Deputy Director of NIST. As it takes about 4 to 8 weeks to schedule an ICC meeting, one could be held in May. It would be timely to complete the letter in about 1 month.

Poland asked about the timeframe for NIST input on the NEHRP reauthorization. Sunder reported that Congress requested a preliminary briefing from NIST, which was conducted about a month ago. Once the ICC agrees on specific language for the NEHRP reauthorization, the NEHRP Secretariat and NIST Congressional and Legislative Affairs staff will work with Congressional staff on the new language. Mark-ups on the new legislation should occur in the late summer or early fall.

Poland agreed that the committee should complete the letter in one month. The next iteration

incorporating editorial changes agreed in this conference call can be quickly disseminated by e-mail among ACEHR members. The committee agreed to reach consensus on the revisions discussed right away instead of scheduling another conference call meeting, assuming that no further substantive changes are made to the letter.

Recommendation #5 was moved after Recommendation #2, and Recommendation #3 was moved below Recommendation #1. The committee reached a consensus to accept the letter as modified and asked that it be proofed and sent to the members by e-mail.

Poland moved for committee approval of the following:

- Incorporate edits to Recommendation #1 and delete the last paragraph.
- Rename Recommendation #2, change it to Recommendation #3, and state that the ICSSC *or* an Interagency Working Group (IWG) be formed.
- Change Recommendation #3 to Recommendation #2.
- Change Recommendation #5 to Recommendation #4.
- Change Recommendation #4 to Recommendation #5, and change “best suited” to “well suited.” Do not include the two rewritten paragraphs submitted via e-mail.
- Incorporate edits to the opening sentence of Recommendation #6.

Before the vote was taken, a member asked about the suspended item on authorizations of appropriations for ANSS and NEES, *i.e.*, including language in the reauthorization that funding must be extended beyond FY 2009. The committee discussed adding a seventh recommendation. An agency representative commented that a key part of the legislation is authorization of funding for all of NEHRP. From that standpoint, including appropriate funding language for ANSS and NEES is important, so long as it is couched in terms of the need for funding authorizations for all four agencies. The committee agreed with Poland’s suggestion to add a sentence on the requirement to the third introductory paragraph in the letter.

Poland called the question on the motion, including the addition of the sentence to the third paragraph of the letter on authorization of appropriations for ANSS and NEES. The vote was unanimous in favor of the motion.

Poland restated that only editorial changes can be made to the letter outside of ACEHR meetings after a final copy is forwarded to the committee for final review. Any substantive changes will necessitate a new open conference call.

## **V. Public Comments**

Poland invited statements or comments from the registered guests in attendance. There were none.

## **VI. Report to the ICC**

Poland asked for thoughts on the content of the 2009 report from ACEHR to the NIST Deputy

Director, including the recommendation from one member to consider the issue of the technical workforce composition in the NEHRP office. There was discussion as to whether another conference call meeting was needed to deliberate on the written response from the NEHRP agencies in response to the written response provided by the committee; the result was negative.

One member suggested appending the reauthorization letter, which presents many thoughts of the committee, to the 2009 report. The chair and the committee members agreed that the reauthorization letter can serve as the report equivalent. In the next 3-4 weeks, Poland will draft a separate letter based on the outline for the report submitted to the members before this meeting. The two letters will serve as the 2009 report, which will be finalized at the next ACEHR meeting.

## **VII. Committee Membership**

Sunder reported that Howard Kunreuther and Ronald Hamburger will step down from the committee at the end of April. The NEHRP agencies are identifying candidates to replace them. He will notify the chair once new appointments are made by the NIST Director.

## **VIII. Adjournment**

The next committee meeting will be held on July 23-24, 2009, in the Washington, DC area (actual location to be determined). Poland thanked everyone for their participation and adjourned the meeting.