

**National Earthquake Hazards Reduction Program  
Advisory Committee on Earthquake Hazards Reduction  
National Institute of Standards and Technology  
Gaithersburg, Maryland  
January 10, 2013**

**Conference Call Meeting Summary**

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**Advisory Committee Members:**

Chris Poland, Chair	Degenkolb Engineers
Norman Abrahamson*	Pacific Gas & Electric Company
James Beavers	James E. Beavers Consultants
Craig Davis	Los Angeles Department of Water & Power
Richard Eisner	Retired, Region Administrator, State of California
Robert Herrmann	Saint Louis University
John Hooper*	Magnusson Klemencic Associates
Laurie Johnson	Laurie Johnson Consulting
Michael Lindell	Texas A&M University
Ronald Lynn	Clark County (NV) Department of Development Services
Jack Moehle	University of California, Berkeley
Kenneth Stokoe	University of Texas at Austin
Brent Woodworth	Emergency Preparedness Foundation
Mary Lou Zoback	Stanford University
Ralph Archuleta	Ex-officio member of ACEHR as Chair of USGS Scientific Earthquake Studies Advisory Committee

\* Not in attendance

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

Shyam Sunder	NIST, Engineering Laboratory Director and ACEHR Designated Federal Officer
Howard Harary	NIST, Engineering Laboratory Deputy Director
Jack Hayes	NIST, NEHRP Director
Steve McCabe	NIST, NEHRP Deputy Director
Ed Laatsch	FEMA, Chief, Building Science Branch
Joy Pauschke	NSF, NEES Program Director
Tina Faecke	NIST, NEHRP Secretariat
Michelle Harman	NIST, NEHRP Secretariat
Brian Garrett	BRI Consulting Group

**Guest:**

Tim Ellison	ExxonMobil Upstream Research Company, Injection Well Design Advisor
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## **Summary of Discussions**

### **I. Review Meeting Goals and Agenda**

Chris Poland, Chair of the Advisory Committee on Earthquake Hazards Reduction (ACEHR), called the roll of committee members and welcomed other attendees of this teleconference. The purpose of the meeting was to review the Committee's draft letter report to the NIST Director. The report was displayed on a WebEx videoconferencing site accessed by the attendees.

ACEHR will submit a final version of this report to the National Earthquake Hazards Reduction Program (NEHRP) Interagency Coordinating Committee (ICC). Shyam Sunder indicated that a date has not yet been established for the next ICC meeting, but that due to scheduling conflicts, the meeting will probably not occur until sometime in March 2013. ACEHR members decided at their last meeting in November 2012 that they wanted to submit their 2013 report prior to the next ICC meeting, which at that time looked as though it might be held in January 2013. The Chair noted that the postponement of the ICC meeting gives ACEHR more time to complete its 2013 report, should the committee determine that a follow-up meeting is needed.

### **II. Real-Time Editing of the Draft Report**

#### ***Introductory Section***

The Chair led the committee in reviewing and editing the draft report, section by section, beginning with the introductory text. He summarized the content of this section, noting that it describes ACEHR's November meeting and the committee's decision to submit the 2013 report in the shorter, interim format used in 2009 and 2011, rather than in the comprehensive format used in 2008, 2010, and 2012. The draft text states that the detailed 2012 report still stands as a valid, current assessment of NEHRP, and that the 2013 report focuses on four additional topics that ACEHR requests NEHRP to consider along with the recommendations made in ACEHR's 2012 report. These four topics, which arose and were discussed at the November meeting concern: (1) the future of the George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES), (2) the status of the implementation component of NEHRP, (3) the need for a building performance rating system, and (4) the implications of recent findings on induced seismicity.

The Chair observed that in the draft report, ACEHR presents these topics as areas that should be considered in the near future by NEHRP, rather than as specific recommendations to NEHRP. Shyam Sunder explained that, although the ICC is required by law to respond to formal committee recommendations, the ICC gives due consideration to all advice submitted by ACEHR, whether or not it is formatted as formal recommendations. The consensus among the committee members in attendance was that, where possible, formal recommendations should be included under the topics addressed in the report.

The committee discussed a sentence found in the introductory text about the impact of the "national budget stalemate" on NEHRP's ability to carry out its strategic plan. Several members indicated that their frustration was related more to the declining funding allocated to NEHRP in

recent years rather than to congressional wrangling over the entire Federal budget. The committee decided on several changes to this portion of the introduction, which were implemented by Tina Faecke in the copy of the report displayed to the committee via WebEx.

### ***Section on the Future of NEES***

In addition to making several minor changes to the text of this section, the committee decided to end the section with a formal recommendation. Two elements were initially addressed in this recommendation: continued support for NEES and for research that uses NEES, and “cooperative use” of NEES by the NEHRP agencies.

There was considerable discussion about the meaning of “cooperative use” and about which agencies it would involve. The issue focused on the fees charged for using NEES experimental facilities. Research projects supported by NSF incur an NSF-subsidized rate to use NEES facilities. Other agencies using NEES facilities, including other NEHRP agencies, pay higher, unsubsidized rates.

Joy Pauschke explained to the ACEHR members that the rates for NSF grantees are subsidized by the funds that NSF provides for NEES operations. Since other agencies, including the other NEHRP agencies, do not fund NEES operations, the subsidized rates are not available to them.

Subsequent member discussion centered on whether NSF could extend subsidized user fees to research conducted or supported by the other NEHRP partner agencies. The committee ultimately decided to delete the material about cooperative use from the report. This will give ACEHR members time to better define the issue and formulate clearer and more specific recommendations related to it.

### ***Section on the Implementation Component of NEHRP***

Several members remarked that the draft of this section may not be strong enough. Although it talks about FEMA’s diminishing financial support for its NEHRP responsibilities, the draft may not adequately convey how much of an impact this is having on NEHRP’s implementation function.

The committee added a formal recommendation that focused on the need to increase the resources that FEMA receives and allocates to its NEHRP implementation activities. Attendees noted that FEMA allocates considerable financial support to post-disaster mitigation, and that FEMA management considers those funds to be a very significant part of its support for all-hazards mitigation, which includes earthquake mitigation. The committee added some language to the section to clarify and emphasize that what is lacking at FEMA is not all support related to earthquakes, but rather funding for pre-earthquake mitigation and preparedness activities, which yields benefits that are not obtainable through post-disaster work.

### ***Section on the Need for a Building Performance Rating System***

Committee members talked about adding a formal recommendation to this section, as well as about reorganizing and contextualizing the material. They felt that the recommendation should address both development and implementation of a building performance rating system, and that the former task may be appropriate for NIST and the latter for FEMA. Shyam Sunder suggested that the process be comprised of three steps: (1) developing the rating system (tools and methodology), (2) shepherding the system through the appropriate standards development process (e.g., American Society of Civil Engineers), and (3) implementing the standards among relevant stakeholders. He indicated that the first two steps appear to fall within the purview of NIST, but the implementation step within the purview of FEMA. The committee inserted a recommendation consistent with these observations, and reorganized and modified the text preceding the recommendation.

### ***Section on the Implications of Induced Seismicity***

Noting that a draft of this section had apparently not yet been prepared, the Chair asked the committee whether the report should be delayed until this section can be added, or whether the section should be deleted from the report. Members recalled that during the November meeting, it was suggested that induced seismicity be added to the report to clarify whether and how it will be incorporated into the next generation of national seismic hazard maps developed by USGS, and to emphasize the need to deploy instruments to measure induced seismicity, particularly in the midwestern and eastern regions of the country where more data are needed to improve ground motion prediction equations. Members noted that future plans for carbon sequestration are drawing even more attention to the issue of induced seismicity, and that there is some concern expressed about the immediate risk posed to communities located adjacent to activities that are believed to trigger induced seismicity.

The consensus was that the report should be delayed until this section can be added, as long as the delay does not prevent the report from reaching the ICC prior to its next meeting (which is yet to be scheduled, but appears destined for March). The Chair asked that Mary Lou Zoback and Ralph Archuleta work with Norman Abrahamson to draft this section, and that NIST schedule an additional teleconference to give the committee an opportunity to review the draft and incorporate the section into the report.

## **III. Adjournment**

The Chair asked Tina Faecke to send out the current version of the report (as edited during the meeting) to the committee, and to poll members on available dates for a follow-up conference call. He asked that the draft section on induced seismicity be completed within the next two weeks so that it can be compiled into the final draft of the report that will be distributed to the committee prior to the next meeting. He cautioned that although members can review and edit the report individually before the next teleconference, they cannot collaborate on edits with other committee members prior to that session. The meeting adjourned at 3:08 p.m.