

**National Earthquake Hazards Reduction Program (NEHRP)
Advisory Committee on Earthquake Hazards Reduction (ACEHR)
August 2-3, 2023 Hybrid Meeting Summary**

Attendees (listed alphabetically by category)

ACEHR Members

Lucy Arendt, Chair	St. Norbert College
Ann Bostrom	University of Washington
Jeffrey Briggs	Missouri State Emergency Management Agency
Robert Carey	Utah Division of Emergency Management
David Cocke	Structural Focus
Michael Hamburger*	ACEHR ex-officio as SESAC Chair
Thomas Heausler	Consulting Structural Engineer
Tara Hutchinson	University of California, San Diego
Anne Meltzer	Lehigh University
Danielle Mieler	City of Alameda
Jonathan Stewart	University of California, Los Angeles
Douglas Wiens	Washington University in St. Louis

NEHRP Agency Representatives

Luciana Astiz	National Science Foundation
Michael Blanpied*	United States Geological Survey
William Blanton*	Federal Emergency Management Agency
Tina Faecke	National Institute of Standards and Technology
Jonathon Foster*	Federal Emergency Management Agency
John “Jay” Harris	National Institute of Standards and Technology
Andrew Herseth*	Federal Emergency Management Agency
Daniel Linzell**	National Science Foundation
Steven McCabe*	National Institute of Standards and Technology
Jacqueline Meszaros	National Science Foundation
Siamak Sattar***	National Institute of Standards and Technology
Dena Smith-Nufio**	National Science Foundation
Mai (Mike) Tong	Federal Emergency Management Agency

Others

Karyn Beebe*	International Code Council
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*Attended remotely both days ** Attended Wednesday only ***Attended remotely Wednesday only

I. Welcome

As Designated Federal Officer (DFO) for ACEHR (or Committee), Ms. Tina Faecke called the meeting to order at 8:30 a.m. EDT, took roll call for the Committee members, and confirmed the quorum requirement was satisfied. She announced the meeting will be recorded, reviewed some meeting logistics, and then turned the meeting over to the ACEHR Chair, Dr. Lucy Arendt, who introduced Dr. Dena Smith-Nufio. Dr. Smith-Nufio provided an overview of the Geosciences Directorate work, thanked the Committee for their engagement and active participation, and emphasized the importance of the Committee’s assessment.

After Smith-Nufio’s introductory remarks, she handed the meeting over to Dr. Daniel Linzell for his introductory remarks and overview of the Engineering Directorate. He also thanked the

Committee for their service and reminded them that interest in NEHRP activities continues to reside at a Congressional level.

After his remarks, the meeting was handed back to Arendt, who asked if there were any questions. The Committee expressed their appreciation for NSF's support and flexibility between the two Directorates for the Turkey earthquake RAPID effort. Although the Geosciences and Engineering Directorates provide the primary funding for NEHRP, funding is also provided by other Directorates within NSF. Arendt expressed her appreciation to NSF for hosting this in-person meeting, thanked the Committee for their efforts on the draft report thus far, and then reviewed the meeting agenda and goals.

II. Public Input Period

Committee DFO Faecke reported that no one from the public registered to speak.

III. NEHRP (or Program) Agency Updates

Dr. John Harris, Acting NEHRP Director, provided an informal brief update on the status of three major NEHRP activities (Interagency Committee on Seismic Safety in Construction, ongoing NEHRP response to the Turkey earthquake sequence, and the potential NEHRP reauthorization) since the May 8-9 ACEHR meeting. Dr. Michael Blanpied reported that the USGS Circular 1242 update is nearly completed and will be published shortly. Harris provided a brief overview of the USGS Earthquake Investigations Committee (EIC). Blanpied added the EIC will begin summarizing the Turkey earthquake lessons learned and identifying things that still need to be pursued. Harris mentioned that the Program Coordination Working Group (PCWG) is developing a standard operating procedure (SOP) for improving continuity of agency reporting to ACEHR over their two-year reporting period and will invite the Committee to provide feedback once the draft SOP is developed.

FEMA reported they are developing proposals to submit for the next International Code Council code cycle for the 2027 edition due in January 2024.

Discussion:

The value of the NEHRP Recommended Seismic Provisions for New Buildings and Other Structures by the Building Seismic Safety Council (BSSC), National Institute of Building Sciences (NIBS) was noted by the Committee.

The Committee asked how the agencies deal with resource allocation after a natural hazard event and wanted to know if the agencies are dealing with challenges or barriers for data resources needed to mobilize a rapid response? Harris referenced the Surfside event and reminded the Committee that NIST had people there within 48 hours, but funding for the official NCST investigation was provided by Congress. NSF may experience funding delays but the institutions receiving NSF RAPID awards have the discretion for whether to spend the funding up to 90 days in advance. Resource reallocation or RAPID awards are not an issue of interagency coordination for NSF. USGS has authority for RAPID funding, and in-house reallocation isn't an issue for post-earthquake investigation resources when it is determined that there are lessons to be learned. Mr. William Blanton reported that the Building Sciences Branch has domestic pre-Mitigation Assessment Team (MAT) funding available once they determine there are lessons to be learned. FEMA disaster dollars for a full domestic MAT require both financial and contractual approval. Reallocation of funding is not necessary at FEMA.

A comment was made by the Committee regarding the lack of NEHRP agency participation with other organizations following a major event. Harris said the agency's mission and event scope need to be considered in addition to the actual location/economic and political conditions. NIST likes to wait until after first response is done. USGS staff has previously accompanied the NSF-funded Geotechnical Extreme Events Reconnaissance (GEER) team but USGS needs to be pre-positioned. Blanpied suggested having the PCWG discuss how they can provide staff to accompany the main team/organization for future events. USGS's mission is domestic risk reduction but they can also participate in international events. The Committee asked if public health is included and coordinated among the NEHRP agencies following a major event. Blanpied stated that public health is a potential area for growth and integration during the EIC coordination calls following an event.

IV. Scientific Earthquake Studies Advisory Committee (SESAC) Updates

Dr. Michael Hamburger, SESAC Chair and ACEHR ex-officio member, provided a brief update of the SESAC activities and their draft 2023 annual report to be submitted to the USGS Director by the end of the fiscal year. The SESAC report is also provided to Congressional members in addition to the USGS Director.

Discussion:

There were no questions from the Committee, but a suggestion was made to provide an overview to new ACEHR members on the relationship and role of the SESAC Chair. The SESAC advises USGS, whereas ACEHR is a high-level Committee assessing all of the NEHRP agency activities while considering their different missions and expertise in meeting a national need. SESAC was created prior to ACEHR through a NEHRP reauthorization. However, the SESAC charging language was not addressed in the bill as an amendment to the Earthquake Hazards Reduction Act of 1977, the base legislation for NEHRP. As such, the roles of the two complimentary committees can seem blurred—future legislation should consider clarifying and coordinating the roles of the two committees.

V. 2023 ACEHR Biennial Report Discussion

Arendt shared the latest draft ACEHR report outline including high-level topics for consideration in the final report and provided a link in the chat for those participating remotely. She reminded the Committee that their goal is to review and reach consensus on the draft report content before the end of tomorrow's meeting. Arendt asked the Committee to breakout into their small working groups to review the overall report structure as well as the proposed observations and recommendations and then to report back to the full Committee.

Discussion:

The Committee asked whether observations and recommendations from prior reports should be repeated in this report. Faecke reminded the Committee that the total number of cumulative recommendations are reported in the public Federal Advisory Committee Act (FACA) database, including which recommendations are partially or fully implemented. Faecke included a link to the FACA database in the meeting chat.

Following breakout discussions, the Committee reached consensus on the following:

- Overall report structure.
- Move “recommendations” to the executive summary.
- Move “agency achievements” before the recommendations narrative section.

- Keep limitations (such as COVID) in mind when highlighting achievements.
- Every topic in the NEHRP Strategic Plan doesn't need to be addressed in the 2023 Committee report, but recommendations should tie to the Plan.
- Consider listing ACEHR membership and affiliation as well as NIST management.
- Highlight the need for ACEHR to provide input on topics in advance of agency updates.
- Keep "NEHRP Management Plan", "continuity of NEHRP leadership", and "research to practice" recommendations.
- Remove the term "observations" within the report that don't necessarily lead to a recommendation; they are substantive things that ACEHR observed and don't require a formal response from the NEHRP agencies.
- ACEHR meeting protocols, updates on implementation of GAO recommendations, and new ACEHR member onboarding process should be moved to a separate letter for the NIST Director or NEHRP management.
- Move "guiding principles" to an appendix.
- Remove "national risk assessment" topic.
- Keep "functional recovery," "earthquake scenarios," and "essential research and problem-focused studies" recommendations.
- Recommend enhancing and modernizing the NEHRP website based on stakeholder feedback.
- Use the "first person" to revise/rewrite the next draft report.

VI. Closing Remarks

Prior to meeting tomorrow, Arendt encouraged everyone to review the topics and tone of the previous ACEHR reports available on the NEHRP website at <https://nehrrp.gov/committees/reports.htm>.

Arendt thanked everyone for their engagement, participation, and commitment.

VI. Adjournment for the Day

Faecke reminded everyone to bring their NSF visitor badge with them tomorrow and then officially adjourned the meeting at 5:00 p.m. EDT.

ACEHR MEETING SUMMARY – Day Two

August 3, 2023

I. Call to Order and Opening Remarks

Committee DFO Faecke called the meeting to order at 8:30 a.m. EDT, took roll call for the Committee members, and confirmed the quorum requirement was satisfied. She reminded everyone the meeting will be recorded.

Arendt reminded the Committee their task today is to discuss what might be included in their 2023 report, which is due to the NIST Director by September 30. She also announced that based on responses received from the recent meeting poll, a virtual ACEHR meeting will be held on September 25, 2023 from 1:00-5:00 p.m. EDT to finalize their report.

II. 2023 ACEHR Biennial Report Continued Discussion

Arendt shared an updated version of the draft report within Google, based on yesterday's discussion, and provided a link in the chat for those participating remotely. The Committee still needs to reach a consensus on whether to use "observations" in addition to "recommendations". In reviewing topical areas that should be represented as a recommendation, Arendt explained her reasoning for including a procedural recommendation for biennial NSF Syntheses Report updates was so that information would align with the ACEHR biennial report. NSF confirmed that providing those updated reports would be possible in lieu of the quarterly reports. The Committee mentioned that it would be helpful if NSF could also include examples of funded research and the kinds of proposals received, but Astiz said it would be very time consuming for them to provide such a comprehensive report. Arendt noted that the NEHRP biennial reports provide information which helps facilitate the Committee's assessment.

The Committee had a lengthy discussion regarding activation of the recently updated USGS Circular 1242, including coordination across federal and non-federal partners following a major earthquake event, in addition to the speed of response. There was Committee consensus to include a recommendation on this topic. A suggestion was made by the Committee for the agencies to include resource allocation challenges or barriers during their meeting updates. Diversity, equity, and inclusion was mentioned, and the Committee agreed to fold these practices into other recommendations or specific activities within the narrative for the recommendations. Arendt reminded the Committee that their report needs to focus on recommendations that could be implemented within the next two years. The subject of NEHRP performance measures was brought up again, and Arendt reminded everyone those metrics are expected to be incorporated in the NEHRP Management Plan.

The Committee divided into three breakout groups to:

- refine the language for their assigned recommendations, without worrying about a justification for each recommendation;
- decide whether the recommendation should be directed to one or more agency or to NEHRP as a whole;
- discuss and consider the "emerging issues" (earthquake sequences, insurance, and technologies) and determine whether each of them belong in the report.

When the breakout groups reconvened as a Committee, each group reported their suggested language for the recommendations. There were expanded discussions among the members on each recommendation prior to reaching a general consensus on the language as well as the priority order. The Committee agreed that all three "emerging issues" belong in the report.

Arendt shared a writing assignment chart and asked each member to self-select two recommendations they would like to draft a brief narrative (less than three paragraphs) for in addition to writing a draft narrative for one of the agency updates/accomplishments or one of the emerging issues. Prior to beginning writing assignments, Arendt offered to restructure and update the draft report by August 11, based on decisions made during this meeting. Individual draft narratives will be emailed to Arendt no later than September 8. A final draft report will be shared with the Committee and NEHRP agencies prior to the September 25th virtual meeting.

The scope and proposed schedule for future ACEHR meetings was discussed. To align with the ACEHR biennial report, the **first** Committee meeting (February or March) after submitting their biennial report will focus on responses from the agencies on the report recommendations. The **second** meeting (August) will focus on a full year of agency updates and plans, organized by NEHRP strategic goals and objectives, highlighting any progress on ACEHR recommendations. The **third** meeting (February or March) will focus on developing a framework for the Committee's biennial report and agency updates regarding implementation of programmatic activities for the second year. The **fourth** meeting (August) will focus on finalizing the Committee's report and may also include brief agency updates relative to topics in the Committee's report. Short interim meetings may need to be scheduled during the year when the biennial report is due. Harris asked if the Committee prefers receiving a separate list of agency programmatic activities for each update or a cumulative list for the year for all four agencies. A suggestion was raised for ACEHR to provide guidance and topical areas for the agency updates each year. Arendt asked if NIST would consider changing the Committee's report due date from September 30 to December 31. Faecke noted the Federal Advisory Committee Act public database reports fiscal year information, not calendar year. Arendt offered two suggestions for improving the agency updates: (1) reduce the amount of text on each slide, even if additional slides are needed, and (2) use color coding organized by NEHRP strategic goals and objectives. The Committee suggested the PCWG email detailed agency update documents at least two weeks in advance of each meeting and then use slides to highlight progress. Additional discussion time on the agenda after each agency update would also be beneficial and would improve the "drinking from a fire hose" concept.

Consensus was reached to expand the onboarding process to assist new members with getting up to speed more quickly and to improve the collective working relationship with the PCWG.

III. Closing Remarks

Arendt expressed her appreciation for the time and investment of the Committee participants and NEHRP agency representatives. The next ACEHR meeting will be held virtually from 1:00-5:00 p.m. EDT on September 25. A poll will be sent with late February and early March dates for scheduling the next in-person meeting.

IV. Adjournment

Faecke thanked everyone for their participation and adjourned the meeting at 2:00 p.m. EDT.