



COMMITTEE ON
GEOLOGICAL AND GEOTECHNICAL ENGINEERING
BOARD ON EARTH SCIENCES AND RESOURCES

**Advancing the State of Practice in the Assessment of Earthquake-Induced Soil Liquefaction
and Its Consequences**

Workshop

February 13, 2017

AGENDA

*Ayres Hotels & Suites Costa Mesa, Camberley East & West Rooms
325 Bristol St, Costa Mesa, CA 92626*

For Online Participants

Join the meeting at:

<https://nationalacademies.webex.com/nationalacademies/j.php?MTID=m7b9af7ed2335bd80199ef82fcb116a35>

OVERVIEW

The National Academies of Sciences, Engineering, and Medicine has released a new report *State of the Art and Practice in the Assessment of Earthquake-Induced Soil Liquefaction and Its Consequences* (<https://www.nap.edu/catalog/23474>) that objectively evaluates the state of liquefaction assessment methods that have evolved over the last 20 years. The report addresses sources of uncertainty in liquefaction assessments and discusses strategies that can be used in the short-term to minimize them. Looking to the longer term, the report sets directions for the development of new assessment approaches and methods, including performance-based methods. The report is also a first attempt within the geotechnical earthquake engineering community to assess methods for evaluating the consequences of liquefaction. The Committee on Geological and Geotechnical Engineering (COGGE), under whose auspices the report was written, is hosting a workshop which will include a report brief by study committee members and discussion among participants about ways in which the report's recommendations might be implemented. Technical community needs for implementation will be discussed.

February 13, 2017

OPEN SESSION

9:00 A.M. – 4:30 P.M.

NEW NASEM REPORT

STATE OF THE ART AND PRACTICE IN THE ASSESSMENT OF EARTHQUAKE-INDUCED SOIL LIQUEFACTION AND ITS CONSEQUENCES
CAMBERLEY EAST & WEST ROOMS

9:30 am

Welcome and introductions

Martin McCann, chair, COGGE

9:40

REPORT BRIEF

Sammantha Magsino, NASEM staff study director

Edward Kavazanjian, study committee chair

Russell Green, study committee member

Ellen Rathje, study committee member

Steve Kramer, study committee member

- 10:40 Question and Answers with on study recommendations with study committee members
Facilitated discussion, *Glenn Rix, COGGE member*
- 12:10 General comment period: Workshop participants will sign up to provide comments about the report (3 minutes maximum per person)
- 12:30 pm Working lunch, independent discussions
- 1:30 Description of Session Objectives
Martin McCann, Ph.D., COGGE Chair
- 1:35 **Response to report from sponsors: How they will they use the report recommendations?**
Facilitated discussion, *Priscilla Nelson, COGGE member*
- Panelists:
Youssef Hashash and Scott Brandenburg, American Society of Civil Engineers/Geo-Institute
Thomas Weaver, U.S. Nuclear Regulatory Commission
David Gillette, Bureau of Reclamation
Silas Nichols, Federal Highways Administration
Chris Brown, Port of Los Angeles
Adam Perez, Los Angeles Department of Water and Power
TBD, Port of Long Beach
- Questions for discussion:**
1. What is your organization doing to evaluate and prioritize the report's recommendations and consider their implementation?
 2. Which recommendations will most likely help your agency carry out its mission today (i.e., areas of concern that have been resolved)?
 3. Which recommendation(s) will most likely help your agency carry out its mission in the future through accomplishing the required research?
 4. The report recommends use of performance-based approaches to liquefaction and its consequences. What would your organization (and supporting contractors) need to do to support such a transition?
- 3:00 Break

3:15 **Implementation of recommendations in practice: what are the needs of the technical community?**

Introduction to session and facilitated discussion, *James K. Mitchell, COGGE member*

Panelists: *David Gutierrez, GEI*
 Tom Shantz, CalTrans
 Arul Arulmoli (Study Committee Member), Earth Mechanics, Inc.
 Lelio Mejia (Study Committee Member), Geosyntec, Inc.
 Jon Stewart, University of California, Los Angeles

Questions for discussion:

1. From your perspective as an owner/regulator/practitioner, what are your thoughts about the report recommendations with respect to engineering practice in the near term?
2. The report recommends that liquefaction cases histories and areas with a high probability of liquefaction be monitored to gather data to support future developments. How can the research community support the collaborative implementation of the report recommendations by facility owners, regulators, engineering firms, and academic institutions to implement the report recommendations?
3. What steps need to be taken by the technical community to implement the report recommendations?

4:20 Synthesis of major themes discussed at the workshop/Final remarks, *James K. Mitchell, COGGE member*

4:30 Closing comments from COGGE chair; public workshop adjourned