



State Of California

ALFRED E. ALQUIST SEISMIC SAFETY COMMISSION



Governor Edmund G. Brown Jr.

State Capitol, Room 437
Sacramento, California
Minutes of Regular Meeting
February 21, 2015

Members Present

Timothy Strack, Chairman
Tracy Johnson, Vice Chair
Salud Carbajal
Ken Cooley/Elizabeth Hess
Michael Gardner
Mark Ghilarducci
Randall Goodwin
Peggy Hellweg
Helen Knudson
Kit Miyamoto (arrived at 10:11 a.m.)
David Rabbitt
Fuad Sweiss (arrived at 11:15 a.m.)
Mark Wheetley
Chester Widom

Members Absent

Greg Beroza
Jim McGowan
Ian Parkinson

Staff Present

Richard McCarthy, Executive Director
Karen Cogan, Administrative Officer
Robert Anderson, Sr. Engineering Geologist
Henry Reyes, Special Projects Manager
Fred Turner, Structural Engineer
Salina Valencia, Legislative Director

I. CALL TO ORDER AND ROLL CALL

Commission Chairman Timothy Strack called the meeting to order at 10:08 a.m. and welcomed all participants. Administrative Officer Karen Cogan called the roll and confirmed the presence of a quorum.

II. CHAIRMAN'S REMARKS

Chairman Strack said he would defer his remarks to the end of the meeting.

III. APPROVAL OF MINUTES OF OCTOBER 8-9 AND DECEMBER 11, 2014 MEETING MINUTES

Chairman Strack noted that a quorum was not present at the December meeting, so approval of the minutes of the October 8 and 9 meetings was deferred. He asked if there were any changes or corrections to the October or December meeting minutes.

Commissioner Helen Knudson said the motion at the top of Page 21 of the October 9 minutes should be revised to reflect that she was the maker of the motion and Commissioner Mark Wheatley seconded the motion.

Commissioner Peggy Hellweg identified two corrections to the December minutes: First, she clarified that Commissioner Greg Beroza was present at that meeting, and second, in the discussion of 2015 meeting dates and locations on Page 9, the first line should indicate that Ms. Cogan proposed holding meetings on the second Thursday in alternate months.

ACTION: Commissioner Randall Goodwin made a motion, seconded by Commissioner Michael Gardner, that:

The Commission approve the minutes of October 8-9 and December 11, 2014, meetings as amended.

* Motion carried, 12 – 0 (Commissioners Kit Miyamoto and Fuad Sweiss absent during voting).

IV. UPDATE ON NAPA EARTHQUAKE REPORT

Executive Director Richard McCarthy informed the Commission that approval of the contract with the Pacific Earthquake Engineering Research Center (PEER) to study the impacts and lessons learned from the Napa earthquake was imminent. He introduced Dr. Laurie Johnson, of PEER, and invited her to provide an update.

Dr. Johnson gave a brief summary of her background in urban planning, engineering, and geosciences research, and said she specialized in recovery and rebuilding issues. She stated that she was a member of the California Ad Hoc Tsunami Policy Working Group, had done research for the National Earthquake Hazards Reduction Program (NEHRP), and had authored the policy section of the Science Application for Risk Reduction scenarios. Dr. Johnson added that she was especially interested in how disasters affect public policy.

Dr. Johnson displayed a timeline of major earthquakes in California since 1906, and she pointed out key documents and government policy changes that resulted from these events. She noted that although the Napa earthquake was a fairly contained seismic event with only moderate shaking, lessons learned from that earthquake can inform policy decisions.

Dr. Johnson said the goal of the Napa earthquake project is to identify policy implications, prioritize issues, and make recommendations for corrective actions. She indicated that the report will highlight success stories and best practices and will help pinpoint issues with existing policies and unanticipated consequences. Dr. Johnson stated that researchers will first compile a list of policy topics, then prioritize the issues, analyze public policy actions, integrate stakeholder feedback, and then produce a draft by mid-May.

Chairman Strack thanked Dr. Johnson for her presentation and invited comments and questions from commissioners.

Commissioner Mark Ghilarducci offered Cal OES' assistance and resources.

Commissioner Tracy Johnson suggested including a discussion of the evolution of policies and why changes were made over time.

Mr. McCarthy said that after the Napa earthquake, there were a number of complaints to the State Contractors Licensing Board about unqualified contractors offering assistance to people whose homes were damaged. He remarked that these problems tend to be worse in larger events, and perhaps the state should consider increasing penalties for this kind of abuse.

Commissioner Salud Carbajal observed that there were similar reports of fraudulent practices after devastating fires in the Santa Barbara area, and the Insurance Commissioner was able to offer assistance in addressing these problems.

Dr. Johnson advised that a considerable amount of authority devolves to local governments after disasters, but some recovery actions should be centralized. She said the state needs to distinguish which issues are better dealt with in a centralized manner and which are more appropriate for local governments.

Commissioner Wheatley emphasized the need to provide practical guidance to local governments. He noted that having a framework for addressing disaster and recovery issues would help a great deal in dealing with earthquakes as well as other hazards such as rising sea levels.

Commissioner David Rabbitt commented that local governments often find it easier to red tag damaged buildings rather than distinguishing those that pose serious life safety threats and those can be reoccupied after repairs. He said this situation that leaves homeowner with limited options, so they tend to be susceptible to fraud and abuse. Dr. Johnson said there were reports of long delays in providing individual assistance, so the cycle of timing of funding sources is another important problem that should be addressed.

Commissioner Goodwin noted that local governments respond quickly and effectively to small events, but large disaster are much more challenging. He said the Commission is working to update its guidebook for collapse-prone buildings to give local governments more tools to identify and mitigate risks. He recommended focusing on resources that can be deployed quickly and efficiently.

Commissioner Goodwin recommended working with the building industry, the American Institute of Architects, and the Structural Engineers of California to make them aware of fraudulent practices so they can take steps to police their members and prevent these abuses.

Commissioner Gardner agreed that the government should take a role in preventing unqualified people from taking advantage of vulnerable owners of damaged buildings. He pointed out that some contractors have police and fire scanners, so they appear at the scene of a disaster as soon as they hear the news.

Chairman Strack thanked Dr. Johnson for her report.

V. UPDATE ON GLOBAL EARTHQUAKE MODEL PROJECT

Ms. Kate Stillwell, Global Earthquake Model (GEM), reported that GEM released its OpenQuake software platform on time and on budget on January 21. She explained that this open-source platform provides tools for visualizing and assessing risks and estimating the consequences of earthquakes worldwide. She said OpenQuake's data sets are available free to all users, and she showed examples of hazard models for Europe, Vancouver, Japan, and Italy. Ms. Stillwell noted that GEM plans to triple its involvement in partnerships with various organizations over the next five years. She added that the Seismic Safety Commission's sponsorship of specific research projects GEM sets an example for other potential partnerships.

Ms. Stillwell said GEM representatives will be attending a UN conference on disaster risk reduction in Sendai, Japan, in March. Commissioner Miyamoto indicated that he also planned to attend.

Ms. Stillwell described two specific research project the Commission is sponsoring. First, she said, Commission funds are being used to study the implications of various government policies and how they affect absolute recovery time after a disaster. She noted that the second Commission-sponsored project, "Beyond Button Pushing," analyzes the assumptions underlying various risk assessment models and will benefit a wide range of users, including insurers, consumers, and regulators. She observed that a possible extension of this work could help estimate average building losses for each zip code in California. Ms. Stillwell thanked the Commission for providing funding for these important projects.

Chairman Strack thanked Ms. Stillwell for her report.

VI. UPDATE ON COLLAPSE-PRONE BUILDINGS GUIDELINES

Senior Structural Engineer Fred Turner said the Commission has been working on updating its guide to collapse-prone buildings, a document that provides policy guidelines, best practices, and examples for local governments. He drew attention to the 13th version of the updated guidebook, and he invited Commissioner Miyamoto to discuss his proposed revisions. He noted that Commissioner Miyamoto's revisions are shown in red, and comments from other commissioners are shown in blue.

Commissioner Miyamoto proposed changing the title of the document to read, "Guide to Identify & Manage Seismic Risks of Collapse-Prone Buildings for City and County Governments" rather than "Local Governments." Commissioner Ken Cooley recommended using the broader term "Local Governments" instead of "City and County Governments." After some discussion, the Commission decided to refer to "Local Governments" in the title.

Commissioner Miyamoto referred to the section titled "Option 3: Develop Seismic Performance Options" on Pages 8 and 9 of the document, and he suggested simplifying the definitions of the

structural performance categories listed. Commissioner Johnson noted that the text immediately before the list describes the categories as “objectives,” but having collapse-prone buildings should not be an “objective.” Commissioner Hellweg agreed, and recommended changing the word “objectives” to “categories” or “characterizations.” Mr. Turner proposed having the committee revise the introductory paragraph and make the definitions in the list consistent with the wording in the first paragraph.

Commissioner Chester Widom noted that local jurisdictions already have programs to red-tag and yellow-tag buildings after a disaster, and he questioned the purpose of this guidebook. Commissioner Miyamoto clarified that the document is intended to provide guidance to local governments so they can identify and mitigate risks before an earthquake. Mr. Turner added that the guidebook helps local governments develop retrofit objectives and ways to address known risks.

Commissioner Widom observed that users of the guidebook need to understand that buildings are not necessarily collapse-prone just because they are not designed to today’s standards. He said AB 300 required public schools in California to identify hazardous buildings, but dissemination of that information caused widespread panic because many school districts lacked funds to correct their structural problems. He cautioned that owners of residences and commercial buildings may have similar reactions if local governments develop inventories of hazardous buildings within their jurisdictions.

Chairman Strack stated that the guidebook is intended as a resource for local governments, and he noted that the Commission was merely updating a previous version of the guidebook. He requested that commissioners submit additional comments to the staff and ad hoc committee members.

Commissioner Goodwin indicated that the committee will review the proposed changes and incorporate the comments made by the Commission at this meeting. He thanked commissioners for their feedback.

Mr. McCarthy advised that the Commission plans to send the next version of the guidebook to the Agency for its review and feedback, and then to outside reviewers.

VII. PROPOSED PROJECT: CALIFORNIA SEISMIC SAFETY COMMISSION COMMUNITY AND MEDIA OUTREACH PROGRAM

Mr. McCarthy noted that the award-winning Totally Unprepared media outreach campaign, co-sponsored by the Commission, the California Earthquake Authority, and Cal OES, is coming to an end. He said the Commission spent \$350,000 in research funds for three phases of that project, which increased public awareness of earthquake safety and the importance of pre-earthquake mitigation.

Mr. McCarthy observed that the Commission has developed a number of useful programs and products that benefit members of the public and decision-makers, but many people are still not aware of the important role the Commission plays in improving public safety. He recommended

allocating another \$200,000 in research funds for a contract with the University of California at San Diego to help disseminate the Commission's publications and resources to the public. Mr. McCarthy introduced Mr. Michael Kleeman, Senior Fellow, UC San Diego, and invited him to discuss this proposed two-year project.

Mr. Kleeman gave a PowerPoint presentation describing how UC San Diego will assist with the knowledge transfer process by working with partners and using a range of media to convey information to the public. He said the goal of the project is to promote greater visibility for the content and information developed by the Commission. He noted that the outreach efforts will focus on enhancing engagement and learning experiences through direct and indirect channels. He discussed the effective use of traditional partners, grantees, and others to leverage resources and develop innovative, tailored approaches to deliver targeted messages and story templates. Mr. Kleeman showed a coffee shop recycling poster provided by the Department of Conservation as an example of a novel way of disseminating an important public message.

Mr. Kleeman identified the next steps in this two-year proposed project. He said the first task will be to identify goals, define messages, and find channels of distribution. He recommended spotlighting the Commission's projects and initiatives, partner organizations, and other communications. He proposed mapping priority messages, then executing the plan, and then measuring the results. Mr. Kleeman said the researchers will then review and revise the program and provide feedback to the Commission. He added that UC San Diego has considerable experience in working with partner organizations, leveraging resources, and using numerous delivery channels.

Commissioner Salud Carbajal stressed the importance of using non-traditional channels and delivering messages in multiple languages to ensure dissemination to California's diverse ethnic communities. Mr. Kleeman confirmed that the project will include these features.

Commissioner Ghilarducci asked about the measurements of success of the Totally Unprepared project. Mr. Kleeman responded that the researchers tracked visits to social media sites, number of downloads of materials, Facebook and Twitter posts, and content that was picked up by other states and organizations.

Commissioner Widom expressed his support for this project. He cautioned that contracting with external organizations could create conflicts with unions representing state employees. Mr. McCarthy clarified that UC San Diego and PEER are both state organizations.

Commissioner Gardner noted that this project will result in greater visibility for the Commission's updated guidebook on collapse-prone buildings and other publications, and he expressed support for the project.

Chairman Strack recommended that the Commission authorize the staff to proceed with the proposal and forward it to the Department of General Services for legal review.

ACTION: Commissioner Gardner made a motion, seconded by Commissioner Knudson, that:

The Commission approve the project as proposed.

* Motion carried, 13 – 0.

Chairman Strack thanked Mr. Kleeman for his report.

VIII. PHASE II STUDY OF EARTHQUAKE IMPACTS ON AGRICULTURE: SCOPE OF WORK

Mr. McCarthy advised that Agency Secretary Caballero, UC Davis representatives, and other potential partnership entities would be visiting the Jet Propulsion Lab (JPL) in early March to discuss ways of using JPL's technology to assess risks to agriculture, and he promised to provide more information to the Commission at the next meeting.

Mr. McCarthy noted that the first phase of the study of earthquake impacts on the state's agricultural industry focused on the risks to specific agricultural sectors, including the cattle industry in Imperial County and perishable crops in Monterey County, and the second phase will explore the vulnerabilities of California's dairy industry and wine industry. He introduced Dr. James Lapsley, Researcher, UC Davis Agricultural Issues Center, and invited him to discuss the Phase II work in more detail.

Dr. Lapsley explained that this study will assess risks to California's dairy and wine industries. He said the researchers will review past earthquakes in the California, Mexico, Italy, Chile, and New Zealand to identify the agricultural impacts and lessons learned from those events. He noted that the next task will entail developing fragility curves for some of the crucial infrastructure components, such as milking machines and wine bottling lines. Dr. Lapsley presented a map of the major faults in Northern California and the Delta area. He showed slides of agriculture-related damage from the recent earthquake in Napa as well as earthquakes in other countries.

Dr. Lapsley said California's dairy industry, centered primarily in the northern San Joaquin Valley and Delta area, has a total value of about \$9.4 billion to the state, and this sector depends on the availability of feed shipments, water, electricity, and transportation. He noted that California produces about \$23.1 billion worth of wine and \$4.4 billion worth of table grapes each year. He indicated that this research will focus mainly on California's coastal area, which produces the greatest volume of valuable wine grapes. Dr. Lapsley added that the wine industry requires power for processing and cooling operations, timely harvesting of grapes, transportation to shippers, and safe and reliable storage facilities.

Dr. Lapsley recommended additional future research on the vulnerabilities of vegetable crops in central and southern California; an economic analysis of the seismic risk in the Delta, including water supply and land subsidence; development of sets of vulnerabilities and mitigation measures; and identification and assessment of the state's most vulnerable industries.

Dr. Lapsley displayed a map of California's Delta and levees, and he pointed out areas where land has subsided and where levees are most vulnerable. He emphasized that levees must be maintained on a regular basis or the entire area will flood with saline water, which will ruin farm land and endanger the state's water supply.

Commissioner Sweiss asked if this project will examine the impact of sea level rise on the Delta. Dr. Lapsley replied that this issue is beyond the scope of the proposed study.

Commissioner Wheatley commented that a recent assessment of the risks of sea level rise in Humboldt Bay identified many important issues and challenges, including regulatory obstacles. He remarked that the effects of these hazards affect California's entire economy, not just agricultural. Dr. Lapsley agreed that these vulnerabilities have both individual and societal consequences. Commissioner Wheatley said local governments need practical, low-cost mitigation measures as well as funding mechanisms.

Commissioner Johnson asked if the purpose of developing fragility curves is to encourage agriculture industries to push equipment manufacturers to provide vulnerability information and make improvements in critical components. Dr. Lapsley noted that shake table testing is the usual way individual equipment components can be evaluated. He noted that equipment manufacturers may have an interest in providing funding for that kind of research.

Commissioner Rabbitt noted that small family farms are especially at risk because they may not have funds to make major improvements. He agreed with Commissioner Wheatley that the agriculture industry needs practical and low-cost solutions. Dr. Lapsley agreed, and noted that it is up to the Commission and other state policy-makers to decide where California needs to apply its efforts and resources.

Commissioner Carbajal asked if the wine industry in the Paso Robles area will be included in the study. Dr. Lapsley replied that the entire coastal area, including Monterey County, Paso Robles, and Santa Barbara, will be part of the study. He added that he would like to see GPS technology installed in every winery located near a major earthquake fault.

Chairman Strack thanked Mr. Lapsley for his presentation. Mr. McCarthy added that he would provide a further update at the next meeting.

IX. LEGISLATIVE UPDATE

Chairman Strack welcomed and introduced the Commission's new Legislative Director, Salina Valencia. He noted that seven candidates for her position were interviewed in the second round, and Ms. Valencia was clearly the most qualified and experienced. Ms. Valencia said she had worked in the State Capitol as a legislative liaison for the past eight years and was excited to join the Commission staff.

Ms. Valencia advised that the Commission was not planning to sponsor any legislation this year, but the staff was tracking five bills related to seismic safety. She said February 27 was the

deadline to introduce new legislation, so the process was still in the early stages. Ms. Valencia noted that there are likely to be bills pertaining to the early earthquake warning system and retrofit issues. She indicated that she planned to attend a joint hearing of the Assembly Governmental Organizations Committee on February 25 regarding the early earthquake warning system. She added that there would be a budget subcommittee hearing on March 3.

Commissioner Cooley commented that Ms. Valencia was instrumental in working on contentious Senate legislation in 2009 and then joined his staff for the next four years. He observed that her outstanding reputation and legislative experience will be a great asset to the Commission.

Commissioner Wheatley congratulated Ms. Valencia and encouraged her to reach out to the League of California Cities and CSAC to build strong relationships with local governments. He urged her to work with the media and take an active role in public outreach.

X. EXECUTIVE DIRECTOR'S REPORT

Diablo Canyon Independent Peer Review Panel

Senior Engineering Geologist Robert Anderson provided an update on the activities of the Public Utilities Commission (PUC) Diablo Canyon Independent Peer Review Panel. Mr. Anderson explained that the Diablo Canyon power plant produces about 8 to 10 percent of California's total average electrical capacity, and the plant has come under scrutiny because of concerns about seismic hazards and mechanical issues associated with aging structures and components.

Mr. Anderson said the independent review panel was established as a result of the passage AB 1632 (Blakeslee) in 2006, which required an analysis of the seismic hazards associated with the power plant. He noted that the PUC has been paying the Commission \$60,000 per year since 2011 for its assistance and participation, an agreement that ends on November 15, 2015. Mr. Anderson reported that the independent review panel is now in the final stages of the seismic hazard analysis required by the Nuclear Regulatory Commission (NRC) as part of its relicensing application for 2024/25. He advised that there are still major security and transportation concerns about the spent fuel at the Diablo Canyon power plant, but that issue is outside the Commission's purview.

Mr. McCarthy added that after the 2011 earthquake and tsunami in Japan, the NRC and the PUC sent a letter to all U.S. nuclear power plants requesting a seismic hazard and flooding analysis by March 2015.

Update on JPL Contract

Mr. McCarthy reported that he received news earlier that morning that the contract with JPL had been approved, so work will get started soon. He said he would have more information at the next meeting.

Approval of Annual Report

Ms. Cogan thanked commissioners who provided comments and suggested revisions of the 2014 annual report. She noted that the Commission is required to report annually to the Governor's office and Legislature on its activities and programs, and the 2014 annual report provides a summary of the research projects, conferences, and other efforts of the Commission over the past year. She said the report highlights the Commission's work on the analysis of Lake Tahoe seismic hazards, the study of earthquake impacts on the agriculture industry, the survey of small businesses and the guidance regarding disaster preparation, the hearings on the Napa earthquake, and the joint workshop with the Nevada Earthquake Safety Council. Ms. Cogan added that the Commission's goals for 2015 include work on the early earthquake warning system, outreach to Native American communities, updating the guidebook on collapse-prone buildings for local governments, and the partnership with JPL.

ACTION: Commissioner Hellweg made a motion, seconded by Commissioner Gardner, that:

The Commission approve the 2014 Annual Report as amended.

* Motion carried, 13 – 0.

Recognition of Karen Cogan's Retirement

Chairman Strack expressed his gratitude to Ms. Cogan for her 26 years of service to the Commission and congratulated her on her upcoming retirement.

Mr. McCarthy noted that many of the Commission's great products are a result of Ms. Cogan's efforts. He commended her for her assistance to the Commission and the people of California. Mr. McCarthy extended his best wishes to Ms. Cogan for a happy retirement. He informed commissioners that Ms. Cogan has begun a new career as an artist, with paintings on display in Rome and other cities in Italy.

Ms. Cogan thanked the Commission for honoring her and pointed out that her success is due to the people who have supported her work, not her own efforts.

Commissioner Ghilarducci presented an official letter of commendation from Cal OES recognizing Ms. Cogan for her tremendous service to the people of California. He said Ms. Cogan's work has made the state a safer place and saved many lives. He congratulated and thanked her for her service.

Chairman Strack presented Ms. Cogan with a framed resolution honoring her and a gift from commissioners. Commissioners, guests, and audience members applauded Ms. Cogan and wished her well.

Budget

Mr. McCarthy discussed options for cutting costs and making up for the projected year-end deficit. He noted that a \$10,000 surplus was predicted at the end of November, but that figure needs to be adjusted to account for Ms. Cogan's retirement buy-out amount and other changes. He reminded commissioners that the Department of Finance reduced the Commission's budget by \$80,000 this fiscal year, and the Commission has already used about \$300,000 of the \$350,000 available overhead for research projects. Mr. McCarthy suggested applying \$15,000 of the remaining \$50,000 in overhead to offset the deficit and help pay for travel to out-of-town meetings. He said that if Ms. Cogan's position remains vacant, the worst case appears to be a \$24,000 deficit as of July 1, 2015.

Mr. McCarthy noted that the Commission receives its funds from the Insurance Fund, and that source is likely to be a bit less in the coming year. He said the staff is working on a budget change proposal to provide relief in the 2015-16 fiscal year. He advised that the San Francisco PUC still owes the Commission about \$12,000 for its assistance with review of the Hetch Hetchy water improvement project, and the California PUC owes about \$30,000 for Mr. Anderson's work.

Mr. McCarthy asked whether commissioners wanted to postpone the April meeting in Santa Barbara and hold a teleconference meeting instead. He said he still favored going to Santa Barbara in April, drawing down more of the overhead for research projects, and submitting invoices now to recover as much reimbursement as possible. He noted that the Commission has about \$2.5 million left in its research fund, with another \$250,000 available in overhead for those projects.

Commissioner Gardner expressed his opinion that the Commission should try to preserve as much research overhead as possible for the future. He recommended deferring staffing decisions to the Executive Director. He suggested proceeding with plans for the Santa Barbara meeting in April, and considering teleconference meetings for future meetings.

Chairman Strack emphasized the importance of engaging in more research projects to build the available overhead, and other commissioners agreed.

After some discussion, the Commission proposed meeting in Santa Barbara in April. Commissioner Hellweg recommended holding a workshop session the afternoon before the meeting.

ACTION: Commissioner Hellweg made a motion, seconded by Commissioner Rabbitt, that:

The Commission hold its April meeting in Santa Barbara and follow Mr. McCarthy's recommendations for reducing the potential year-end deficit.

* Motion carried, 11 – 0 (Commissioners Ghilarducci and Widom absent during voting).

XI. PUBLIC COMMENT

There were no members of the public who wished to address the Commission.

XII. MISCELLANEOUS AND GOOD OF THE MEETING

Ms. Cogan reminded commissioners of the upcoming deadline to submit their annual Fair Political Practices Commission conflict of interest disclosure forms. She asked commissioners to sign and return the Incompatible Activities Statement clarifying the standards of contact for individuals serving on state boards and commissions.

XIII. ADJOURN

ACTION: Commissioner Wheatley made a motion, seconded by Commissioner Goodwin, that:

The Commission adjourn the meeting in honor of Ms. Cogan.

* Motion carried, 11- 0 (Commissioners Ghilarducci and Widom absent during voting).

There being no further business, the meeting was adjourned at 12:49 p.m. in honor of Ms. Cogan.

Sue Celli
Office Manager

Approved by:

Richard McCarthy
Executive Director