



State Of California

ALFRED E. ALQUIST SEISMIC SAFETY COMMISSION

Governor Edmund G. Brown Jr.



Minutes of Meeting
July 12, 2012

Members Participating

Michael Gardner, Chairman
Mark Pazin, Vice Chairman
Mark Ghilarducci
Peggy Hellweg
Helen Knudson
Jim McGowan
Kit Miyamoto (arrived at 10:14 a.m.)
Mathew Ortiz
Timothy Strack
Chester Widom (arrived at 10:49 a.m.)

Members Absent

Emir Macari
Kathy Smith

Staff Present

Richard McCarthy, Executive Director
Karen Cogan, Administrative Manager
Robert Anderson, Senior Engineering Geologist
David King, Legislative & Special Projects Mgr.
Henry Reyes, Senior Structural Engineer
Fred Turner, Senior Structural Engineer

I. CALL TO ORDER/ROLL CALL

Chairman Michael Gardner called the meeting of the Alfred E. Alquist Seismic Safety Commission to order at 10:02 a.m. and welcomed everyone. Administrative Officer Karen Cogan called the roll and confirmed the presence of a quorum.

II. APPROVAL OF MAY 2, 2012 MINUTES

ACTION: Commissioner Timothy Strack made a motion, seconded by Commissioner Helen Knudson that:

The Commission approve the May 2 minutes as presented.

* Motion carried, 8 - 0 (Commissioners Kit Miyamoto and Chester Widom absent during voting).

III. CHAIRMAN'S REMARKS

Chairman Gardner welcomed Commissioner Mark Ghilarducci, the newly appointed secretary of the California Emergency Management Agency (CalEMA), and Commissioner Ghilarducci said he was pleased to be joining the Commission.

Chairman Gardner reported that he attended a U.S. Geological Survey conference at Cal Tech featuring presentations about the state's response to the Landers earthquake and changes that have occurred since then. He noted that the California Integrated Seismic Network, a later agenda item, was one of the topics discussed.

IV. EXECUTIVE DIRECTOR'S REPORT

Budget Update

Executive Director Richard McCarthy drew attention to the budget report distributed to commissioners before the meeting. He invited Legislative and Special Projects Manager David King to report on year-end budget projections.

Mr. King informed the Commission that the Commission ended Fiscal Year 2011-12 in good shape, with expenditures close to projections. He indicated that the Commission staff worked closely with Contracted Fiscal Services to avoid a year-end budget deficit.

Mr. McCarthy advised that the Commission would be discussing the 2012-13 budget in more detail later in the meeting.

Letter of Interest to Participate with U.S. Navy on Tsunami Planning & Decision-Making Tools

Mr. McCarthy reported that the Commission was invited to participate in a U.S. Navy project to develop a planning process for evacuating ships from the San Diego harbor in the event of a tsunami. He said the Navy is applying for a grant to create a hydrodynamic model to simulate harbor response to tsunami waves and to analyze the structural response of harbor facilities and ships. The ultimate goal is to develop a decision-making tool to help the Navy and other harbor tenants respond safely and protect their assets, and this research can eventually be used in other major ports throughout the U.S. Mr. McCarthy explained that the Commission will take the lead on research pertaining to the structural response of harbor facilities to high currents and rapidly changing water levels. He referred to the draft letter of support in the meeting packet and requested approval.

ACTION: Commissioner Mark Pazin made a motion, seconded by Commissioner Strack, that:

The Commission authorize the staff to send the letter as proposed.

Commissioner Pazin clarified that the letter merely expresses the Commission's interest in participating, but no funding contribution was being authorized at this time. Mr. McCarthy confirmed that understanding.

* Motion carried, 8 – 0 (Commissioners Miyamoto and Widom absent during voting.)

State Agency Reorganization

Mr. McCarthy advised that the Little Hoover Commission and Legislature approved a plan to reorganize state agencies that calls for splitting the State and Consumer Services Agency into two groups. He said he would explain the ramifications in more detail as part of the 2012-13 budget discussion later.

V. PRESENTATION OF TOTALLY UNPREPARED AWARDS TO COMMISSION

Mr. Shabbir Safdar, Online Director, Totally Unprepared Campaign, thanked the Seismic Safety Commission for its support of the successful Totally Unprepared Campaign. He explained that the campaign is a joint partnership between the Commission, California Earthquake Authority, and CalEMA to increase awareness of earthquake hazards and encourage people to take steps to mitigate their risks. He said the campaign uses social media and traditional media to deliver messages about what people can do to secure the contents of their residences and prevent earthquake damage. Mr. Safdar stated that the Web-based videos are intended to be hip and humorous, and they are available online and broadcast on Public Broadcasting Service (PBS) television stations. He showed a sample video comparing how shaking affects unsecured and secured wine racks, and noted that there are other similar videos showing snow globes, aquariums, pictures, and bookcases.

Mr. Safdar presented the Commission with two awards, a gold Award of Distinction for a not-for-profit integrated campaign, and a silver award for a public services online video. He noted that CalEMA won a social media award and received honorable mention for the best media campaign. Chairman Gardner accepted the awards on the Commission's behalf. He expressed his appreciation to Mr. Safdar and PBS for this impressive and effective campaign to motivate people to secure their belongings. Mr. Safdar said the intention was to entertain and educate.

Mr. McCarthy informed the Commission that the shaking and fire tests of the model building at UC San Diego had been completed, and he indicated he would provide videos to commissioners so they could view the results.

VI. TOTALLY UNPREPARED PROJECT – PHASE II

Commissioner Knudson thanked Mr. Safdar for providing background information about the Totally Unprepared campaign. She said the goal of the next phase will be to establish cobranding and maximize dissemination of the videos that have already been produced. She noted that the materials have been translated into Spanish and Chinese.

Commissioner Knudson indicated that the Totally Unprepared campaign organizers will work with AT&T, the American Red Cross Bay Area, and other partners to expand outreach and building on existing momentum, and the Commission's contribution will go towards developing mobile applications to facilitate this process. She recommended that the Commission allocate \$49,900 to contract with Michael Kleeman of UC San Diego to serve as the principal investigator

for Phase II. She stated that the total budget for this project is \$349,000. She welcomed input from commissioners with respect to how best to engage other cobranding partners.

Mr. McCarthy advised that the Commission's contribution will be leveraged six-fold, so the funds invested will be well spent. He encouraged commissioners to review the project description in the meeting packet and forward ideas to the staff. He added that the CEA will also provide suggestions and input.

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

The Commission authorize expenditure of \$49,900 in research funds for Phase II of the Totally Unprepared project as proposed.

* Motion carried, 9 – 0 (Commissioner Widom absent during voting).

Commissioner Strack agreed that this project was a very worthwhile use of Commission funds. He said he was pleased the campaign would be moving forward, and expressed support for the idea of pursuing government television channels as well as public television.

VII. “GREAT CALIFORNIA SHAKEOUT” ASSESSMENT PROJECT

Mr. McCarthy noted that the Commission allocated almost \$50,000 to evaluate the lessons learned in the past three years of ShakeOut drills and to identify ways to improve the program. He introduced Dr. Michele Wood, California State University, Fullerton, and invited her to discuss the results of her research.

Dr. Wood said participation in the annual ShakeOut event grew steadily each year and reached nearly 8 million in 2011. She stated that the purpose of her research was to explore the history of the statewide drill, review and compile the evaluations submitted by past participants, and develop recommendations for the future. She reported that she reviewed documents, conducted interviews with sponsors and participants, and then analyzed the data that had been collected.

Dr. Wood gave a PowerPoint presentation summarizing her key findings. She indicated that as a result of their involvement in ShakeOut, over half of the participating schools changed their disaster plans, and over 80 percent used their experience to help educate their staff about preparedness and response activities. She said over 85 percent of participating organizations encouraged their employees to prepare better for earthquakes at home, but only 55 to 65 percent saw improvements as a result of this advice. Dr. Wood noted that most participants felt the drill was worthwhile and should be repeated, and many of them became champions of earthquake preparedness in their own neighborhood and work environments as a result.

Dr. Wood advised that she formulated a series of recommendations as a result of her analysis, and then narrowed the list to the focus on several of the most important findings. She recommended targeting businesses and other organizations for an increased role in future events; targeting schools; growing local champions; promoting the use of new national social media guidelines; testing earthquake warning systems and educating the public about alerts; and

following up with a statewide household preparedness survey. Dr. Wood said she planned to complete her report, disseminate it for comments and feedback, and then produce a final revised version in August.

Chairman Gardner stated that the focus of preparedness should extend beyond businesses to California's entire economic base, including agriculture, manufacturing, and transportation sectors. He pointed out the differences between Japan's success in recovering from its disasters and the problems occurring in New Zealand offer valuable lessons for California.

Commissioner Peggy Hellweg observed that although businesses encourage their employees to prepare for disasters, the businesses themselves need to do a better job of planning for earthquakes. She advocated developing alert and warning systems and identifying earthquake zones to build awareness of the risks. She agreed with Commissioner Miyamoto that employers need to focus on the long-term picture and plan ahead.

Chairman Gardner thanked Dr. Wood for her informative presentation.

VIII. CISN: CALIFORNIA'S SEISMIC NETWORKS AND TOOLS FOR REDUCING EARTHQUAKE LOSSES

Mr. Doug Given, United States Geological Survey and Southern California Seismic Network Manager, gave a PowerPoint presentation about California's Integrated Seismic Network (CISN). He explained that CISN is a cooperative effort of many entities that provides real-time information as well as scientific data about past earthquakes, and he showed a list of core members and participating members. He displayed maps showing earthquake faults in California and the location of seismic monitoring stations. Mr. Given advised that there are about 2,000 locations that send data regarding earthquake locations, magnitudes, and ground motions. He said the real-time information can be used to provide early warnings, notifications, shake maps, and infrastructure damage estimates.

Mr. Given stated that early warning technology has been improving rapidly, and the CISN sensor stations can now give shake warnings seconds before earthquakes. He played a short video showing how Japan's early warning system alerted the public before the 2011 earthquake and tsunamis that hit the northeast coastline of Japan. He said the U.S. lags behind Japan, but the CISN-based warning system is now ready for prototype testing and trials with a selected set of end users. Mr. Given noted that in order to become reliable, the system needs more stations with greater technical capabilities; established methods to provide official notifications to the public with phones, computers, television, radio, and other electronic devices; and public education to inform people what to do in response to the warnings they receive.

Commissioner Miyamoto suggested working with regional anti-terrorism agencies and merging earthquake warnings with their systems. Commissioner Mark Ghilarducci expressed support for technology that makes use of existing systems and enhances their capabilities. He suggested exploring public-private partnerships and pursuing ways to integrate similar initiatives. Mr. Given stated that CISN is aware of other groups' efforts, such as the commercial systems being implemented in Coachella and Imperial Valleys. He noted that these systems could be integrated

with CISN, but the government needs to be cautious about working with for-profit entities because some of their technology is proprietary, and warnings need to be issued by one centralized and official source rather than a variety of private organizations. He advocated following Japan's model, which gathers information from private networks on railroads and other structures to provide public alerts.

Ms. Kate Long, Earthquake, Tsunami & Volcanic Hazards Program, Preparedness Division, CalEMA, agreed that integration of private and public systems would be a key step to developing a comprehensive and reliable warning system. She noted that there are strict limitations on how public funds can be used in conjunction with private enterprises. Commissioner Ghilarducci observed that there are currently no standards and criteria for ensuring the reliability of private systems. Ms. Long emphasized that any information received from outside sources would need to be shared and validated before it can be used as a basis for public warnings. Mr. Given said Japanese law designates a central agency as the sole source for issuing public information. He added that California would need to establish some kind of certification system for private systems.

Commissioner Hellweg expressed her opinion that the Commission should advocate for a statewide early-warning system. Mr. McCarthy recommended working with the CISN partnership group first to enlist their support.

Commissioner Miyamoto indicated that he was in Japan during the 2011 earthquake and knew firsthand that the national warning system worked well. He said the warnings on Japanese television and radio stations not only notified people about an imminent event, but they also provided information about what to do and how to respond. He asked Mr. Given how long it would take for California to develop a system similar to the Japanese model. Mr. Given responded that it would be impossible to reach that level without a substantial increase in funding. He estimated that the current total investment of \$16 million would probably have to be doubled for at least three years. He observed that both state and federal funding is expected to decrease because of budget constraints.

Commissioner Strack expressed his opinion that an early warning system should be a major priority for the state. He asked what the Commission could do to further the effort and make the process go faster. Mr. McCarthy replied that there would need to be ways to leverage scarce public funds, create partnerships with business and commercial participation, and create jobs. Ms. Long advised that Japan developed its warning system after the Kobe earthquake. Mr. Given added that major earthquakes tend to focus more attention on the problems, and California has not had any large earthquakes for more than a decade.

Chairman Gardner recommended looking at private efforts, developing more partnerships, and then trying to bring them together with the CISN. He said working with existing partnerships would save considerable money. Mr. Given stated that CISN has talked with large companies like Disney, Google, and Wells Fargo, and they all seem to understand the value of an early-warning system. He noted that spearheading the effort requires both leadership and expertise.

Commissioner Miyamoto commented that private companies are reluctant to commit major resources for risk reduction, even though it would mitigate future losses. He suggested contacting television and cell phone networks to garner their support and participation.

Chairman Gardner observed that the Commission might be able to help pull the necessary resources together. He suggested discussing next steps after the CREWS presentation at the September meeting.

IX. CALIFORNIA EARTHQUAKE AUTHORITY/RED CROSS AUCTION

Ms. Emily White, Director of Community Preparedness, American Red Cross Bay Area, said the American Red Cross Bay Area has joined with CEA to create a joint messaging campaign to educate the public about effective preparedness actions. She stated that the three main objectives of the project are to share research, combine expertise of the two organizations to develop helpful family-focused advice, and to provide information on earthquake mitigation options.

Mr. Chris Nance, Chief Communications Officer, California Earthquake Authority (CEA), showed a PowerPoint presentation about the joint campaign. He explained that this project is based on the Commission's household preparedness research done by Professor Linda Bourque and former Commissioner Dennis Mileti and follows their recommendations to coordinate the content and standardize messages across time and target audiences. Mr. Nance displayed copies of an April news release announcing the campaign, trade magazine articles, and joint cobranded advertising pieces. He said the campaign also uses direct mail to existing CEA policyholders and provides earthquake preparedness kits to help residents take steps to mitigate earthquake damage.

Ms. White stated that the CEA and American Red Cross Bay Area held a fundraising auction in April that generated \$180,000 to help fund the campaign. She reported that Clear Channel Media provided free radio time, and public service announcements were aired on 21 television stations and 52 radio stations to publicize the event. She noted that 28 items were for advertised for sale online, and the event was even more successful than anticipated. Mr. Nance played samples of some of the public service announcements.

Ms. White advised that the American Red Cross Bay Area will work with CEA on a statewide media tour this fall in conjunction with the ShakeOut drill on October 18.

Chairman Gardner thanked Ms. White and Mr. Nance for their presentation.

X. CALIFORNIA EARTHQUAKE LOSS REDUCTION PLAN UPDATE & WORKSHOP

Mr. McCarthy noted that the 2007 version of the California Earthquake Loss Reduction Plan is scheduled for an update this fall. He recommended narrowing the existing 147 initiatives to about 60, adding a twelfth element addressing agriculture and animal husbandry, and focusing on recommendations that can be accomplished. He proposed having a revised version for the Commission to review in September, with a final product ready by December 31. He invited Dr.

Guna Selvaduray, San Jose State University, to discuss his recommendations for proposed revisions to the document.

Dr. Selvaduray said the 2007 Earthquake Loss Reduction Plan is a multi-faceted, comprehensive document that serves as the state's earthquake mitigation plan. He observed that the existing version emphasizes the built environment and governmental actions rather than things that can be done by private businesses and members of the public; in addition, it views mitigation as a technical and regulatory task rather than a societal issue. Dr. Selvaduray recommended revising the Plan so it appeals to a broader audience and evolves into more of an enabling document rather than a series of prescriptive recommendations. He noted that the state has learned a number of important lessons from past earthquakes, and these realizations include the fact that major disasters have global effects, private sector recovery is crucial, agriculture and animal husbandry are a vitally important sector of California's economy, and earthquakes have serious unintended consequences such as fires, tsunamis, and hazardous materials releases, all of which should be addressed in the next version of the California Earthquake Loss Reduction Plan.

Dr. Selvaduray recommended the following changes:

- Shortening the document to about 20 pages, with only 3 to 5 initiatives for each element;
- Adding a new agriculture and animal husbandry element;
- Including a statement in the introduction addressing the global effects of disasters and citing some real-life examples;
- Updating tables to include recent earthquakes;
- Addressing fires, tsunamis, and hazardous materials releases in the Emergency Response section;
- Including universities in the Education and Information element in addition to K-12 schools;
- Eliminating the prioritization and times to accomplish initiatives;
- Changing use of the terms "economics" to "economic recovery," "recovery" to "societal recovery," and "citizens" to "residents."

Dr. Selvaduray said Appendix 1 will be a table of seismic safety legislation, and Table 2 will be a list of all the elements and the initiatives they contain. He welcomed input from commissioners with respect to the format, content of the sections, and the most important initiatives that should be included.

Commissioner Knudson expressed strong support for changing "citizens" to "residents," a more inclusive and less politically sensitive term.

Mr. McCarthy asked whether particular commissioners should be assigned to review and comment on certain sections or whether it would be better for all commissioners to review the entire document and submit comments. Commissioner Ghilarducci recommended that everyone review the entire document, and other commissioners agreed.

Commissioner Miyamoto asked if the Plan includes a recovery component. Dr. Selvaduray replied that there is an element devoted to recovery issues. Commissioner Miyamoto asked if the document addresses demolition and debris removal, an important step in reconstruction, and Mr.

McCarthy confirmed that there was an initiative focusing on that aspect. Commissioner Miyamoto noted that it might be helpful to identify specific places for debris disposal after major earthquakes.

Commissioner Ghilarducci commented that CalEMA was in the process of reviewing the national framework for disaster recovery and developing more specific plans for California. He commented that updating this Plan dovetails nicely with that effort. Dr. Selvaduray clarified that the Earthquake Loss Reduction Plan is a subset of the state's overall hazard mitigation plan, but this Plan focuses solely on seismic issues.

Commissioner Ghilarducci agreed that private sector recovery is critical to economic recovery, and he expressed support for addressing this issue in the revised Plan.

After some discussion, Chairman Gardner asked commissioners to review the current document and submit their comments and suggestions to the staff by July 31. Commissioners requested a Word version of the document so proposed changes could be highlighted easily, and Dr. Selvaduray stated that he would email a Word copy to the Commission staff immediately.

XI. LEGISLATIVE UPDATE

Mr. King reported on the status of legislation of interest to the Commission. He said SB 1065 (Alquist), a bill pertaining to fire following earthquake, had been amended and broadened so it no longer focused on seismic issues. Mr. King noted that SB 1271 (Corbett), dealing with the Division of the State Architect's (DSA's) Field Act review process, was currently in the Assembly Appropriations Committee and was scheduled to be considered during the first week of the new legislative session. He advised that the bill would create a task force to examine the review process and identify improvements, but it does not take DSA's expenses into account.

Mr. King stated that the budget trailer bill providing an ongoing funding source for the Commission was still sitting on the Senate floor and was likely to die. Commissioner Mathew Ortiz agreed with this assessment, noting that 2/3 approval was unlikely. Mr. King said that if the trailer bill fails, the Commission's funding source will be the state's general fund.

UPDATE ON ITALIAN EARTHQUAKES

Senior Engineering Geologist, Bob Anderson, gave a brief presentation on the Emilia-Romagna earthquakes of May and June. He showed a map of the Po River basin and pointed out the sources of the 5.9 earthquake on May 20 and the 5.8 aftershock of May 29. He noted that the region is similar to California in a number of ways, and damage is currently estimated at \$5 billion to \$6 billion.

Ms. Cogan advised that she was visiting Italy at the time of the earthquakes. She reported that there were 26 fatalities, over 400 people injured, and 1500 left homeless. She said there were extensive losses in the agricultural sector, and the government imposed a 2 percent gasoline tax to help pay for reconstruction.

Commissioner Miyamoto commented that the structural damage was predictable.

Chairman Gardner thanked Mr. Anderson and Ms. Cogan for the update.

XII. EXPENDITURE PROJECTIONS FOR FY 2012/2013

Mr. McCarthy advised that because the trailer bill allowing the Commission to continue to receive funding from the Insurance Fund will probably die, the Commission will likely need support from the general fund instead. He said the Commission's total budget is \$1.3 million, of which \$932,000 will come from the general fund in Fiscal Year 2012-13. The remaining gap of about \$400,000 can be filled with approximately \$200,000 left from the Insurance Fund and \$240,000 of uncharged overhead for research projects that will be completed by June 30, 2013. However, Mr. McCarthy noted, the \$400,000 gap will need to be filled from other sources in subsequent years, and he expressed concern about how the Commission will manage if Governor Brown's November tax initiative fails.

Mr. McCarthy said Mr. King was working on a budget change proposal requesting a total of \$1.3 million from the general fund for next year's budget, with an explanation that the Commission will try to find other sources to offset the additional \$400,000 being requested. He observed that the Commission can expect to receive about \$100,000 in income from various projects, including some overhead expenses for research projects, but those revenues will not be enough to cover the gap. He expressed concern that the Department of Finance and the Legislature could perceive the \$1.3 million General Fund request as an increase.

Mr. McCarthy indicated that the Commission will receive some reimbursement for its work on the CPUC Hetch Hetchy water improvement system review and its assistance with the seismic safety evaluations of the Diablo Canyon and San Onofre nuclear power plants, but those sources will probably total \$100,000 or less. In addition, although the Commission has authority to spend about \$2 million in research funds each year, the actual amount spent each year is considerably less, sometimes as little as \$400,000 or \$500,000, so overhead charges would be limited only 10 percent of the projects completed during a given fiscal year. He emphasized the need to explain these limitations in detail for next year's budget hearings.

Mr. King commented that the Commission is in an unusual position of having to use outside income to augment its budget. He said the budget change proposal will provide several years' worth of financial information substantiating its \$1.3 million budget. He advised that it would be more prudent to request the entire \$1.3 million rather than incurring a deficit and having to ask the Legislature for more funds during the year.

Mr. McCarthy noted that the budget change proposal is due to the State and Consumer Services Agency in mid-August. Because the Commission will not be meeting again until September, he recommended delegating authority to the Chairman and Vice Chairman to review and approve the budget change proposal on behalf of the Commission.

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

The Commission authorize the Chairman and Vice Chairman to submit the budget change proposal as recommended.

* Motion carried, 9 – 0 (Commissioner Widom absent during voting).

Chairman Gardner drew attention to the correspondence with Senator Feinstein in the meeting packet regarding funding for tsunami warning systems.

Commissioner Hellweg noted that USGS has advised that the House Appropriations Committee plans to cut funds for earthquake monitoring by 20 percent, which would mean a \$5 million reduction to California. She observed that this could be disastrous if the state experiences a major earthquake. She suggested sending a similar letter to encourage California legislators to reconsider the proposed reduction. Commissioner Ghilarducci echoed Commissioner Hellweg's concern about the potential impact on California, noting that such a significant cut would impair the state's research and monitoring efforts. He said CalEMA representatives have been talking to the governor and contacting senators' offices.

Chairman Gardner asked the staff to draft a letter to the California delegation.

XIII. PUBLIC COMMENT

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

XIV. GOOD OF THE MEETING

There were no other items brought to the Commission's attention.

XV. ADJOURNMENT

There being no further business, the meeting was adjourned at 1:19 p.m.

Sue Celli
Office Manager

Approved by:

Richard McCarthy
Executive Director