



State Of California

ALFRED E. ALQUIST
SEISMIC SAFETY COMMISSION



Arnold Schwarzenegger, Governor

Alfred E. Alquist Seismic Safety Commission
Minutes of Meeting and Workshop
January 14, 2010

Commission Office, 1755 Creekside Oaks Drive, Sacramento, California

Members Participating

Mark Church, Chair
William Chubb
Christina Curry
John Littrell (by teleconference)
Gary McGavin
Ali Sadre
Michael Stevens
David Thorman
David Walls (arrived at 10:55 a.m.)

Members Absent

Sally Kay
Sharron Leason
Elizabeth Mathieson
James Schwab

Staff Participating

Richard McCarthy, Executive Director
Karen Cogan, Administrative Manager
Robert Anderson, Engineering Geologist
Dave King, Legislative Manager
Henry Reyes, Structural Engineer
Fred Turner, Senior Structural Engineer

I. CALL TO ORDER/ROLL CALL

Commission Chairman Mark Church called the meeting of the Alfred E. Alquist Seismic Safety Commission to order at 9:08 a.m. The roll was called and a quorum was present.

II. CHAIRMAN'S REMARKS

Chairman Church wished everyone a happy new year. He noted the recent seismic activity in California and Haiti helps raise awareness of the need for seismic safety. He commented that the Commission is working hard to fulfill its mission, despite prospects of further budget reductions.

III. APPROVAL OF OCTOBER 15, 2009 MINUTES

Commissioner Gary McGavin noted the misspelling of Chairman Church's name in the last sentence on Page 9.

ACTION: Commissioner McGavin made a motion, seconded by Commissioner William Chubb, that:

The Commission approve the October 15 minutes as amended.

* Motion carried, 8 - 0 (Commissioner David Walls absent during voting).

IV. EXECUTIVE DIRECTOR'S REPORT

Budget Update

Executive Director Richard McCarthy referred to the latest budget update prepared by the staff. He reported that there was a discrepancy between the staff's projections and those of Contracted Fiscal Services, and the staff was working to resolve the differences. He advised that the Commission is likely to end the year with a small surplus. This could change, however, should budget reductions be imposed for this fiscal year. He said all state agencies will be required to reduce Personal Services Budgets by 5 percent this year; for the Commission, this would mean a cut of \$31,000 this fiscal year and \$35,000 next fiscal year. He noted that staff furloughs will continue for the remainder of this fiscal year. Mr. McCarthy added that the Commission will be discussing the status of the budget in more detail during the workshop session.

Citizen Concern

Mr. McCarthy informed the Commission that he had received an email from a citizen complaining that the Commission was not providing enough leadership in loss reduction activities and public education. He drew attention to the letter in the meeting packet to Senator Alquist and his responses to the citizen and to Senator Maldonado.

Report to Attorney General on Research Program

Mr. McCarthy noted that the Commission is required to report to the attorney general each year on how its \$6.5 million in research funds are being spent, and this year's report will emphasize the Commission's success in working with partners to leverage state funds. He said all research projects except the Field Act study involved leveraging, and both the Field Act study and the household mitigation survey cost less than the amounts budgeted. He estimated that leveraging has resulted in a total of \$2.6 spent for every dollar contributed by the Commission.

Mr. McCarthy noted that the Commission has not yet taken any of the 10 percent overhead allowed by the terms of the settlement agreement. He recommended keeping those funds on reserve as a cushion against possible further budget cuts.

Presentation to Insurance Industry Group

Mr. McCarthy reported that he attended a meeting with the insurance industry group arranged by the Agency. He emphasized the need to gain the support of the industry to make the Insurance Fund a permanent funding source for the Commission, and he observed that demonstrating the

Commission's value was the best way to achieve that goal. He said fire following earthquake was the issue of greatest interest to the group, so focusing on that as a future research topic could help bolster support.

V. RESOLUTION IN SUPPORT OF A COMPREHENSIVE NATIONAL SOLUTION TO THE THREAT OF NATURAL CATASTROPHES (S. 886, H.R. 4014, AND H.R. 2555)

Mr. Glenn Pomeroy, Chief Executive Officer, California Earthquake Authority (CEA), requested the Commission's support for three federal bills that would provide citizens with greater financial protection in earthquakes. He reviewed CEA's history and goals, and explained that the high cost of earthquake insurance and high deductibles are barriers to more people purchasing insurance. He said S. 886, H.R. 4014, and H.R. 2555 all help reduce federal exposure to uninsured losses.

Mr. Pomeroy stated that H.R. 2555, the Homeowners Defense Act of 2009, establishes a national catastrophic risk consortium to maintain an inventory of obligations held by state catastrophe insurance entities, coordinate reinsurance contracts, and act as a repository of information, and H.R. 4014, the Catastrophe Obligation Guarantee Act of 2009 (COGA), guarantees the availability of post-disaster federal loans to eligible state programs. He noted that S. 886 is the Senate version of H.R. 4014. He advised that the CEA supports all three bills, as do many consumer groups and organizations. He drew attention to the more detailed summary of the bills in the meeting packet.

Mr. Pomeroy estimated that passage of COGA would reduce premiums by about 35 percent because CEA would no longer have to purchase so much reinsurance. He said CEA could then offer homeowners greater value by reducing the cost of insurance premiums and lowering deductibles.

Chairman Church said the League of California Cities supports these efforts.

ACTION: Commissioner McGavin made a motion, seconded by Commissioner David Thorman, that:

The Commission adopt the proposed resolution supporting the three federal bills.

* Motion carried, 8 - 0 (Commissioner Walls absent during voting).

VI. COMMISSION ACTIONS IDENTIFIED IN SB 113

Mr. McCarthy informed the Commission that Governor Schwarzenegger had signed SB 113, an omnibus bill containing provisions exempting historic state-owned buildings, including the University of California (UC) at Berkeley's stadium, from the Alquist-Priolo Earthquake Fault Zoning Act. Due to concerns expressed by the State Geologist, the Governor added a signing statement directing UC to introduce legislation in January to address these issues. The signing statement instructs the Seismic Safety Commission, the Department of Conservation, and the

Governor's Office of Planning and Research to meet with UC representatives to resolve seismic safety concerns. Mr. McCarthy recommended that the Commission establish an ad hoc committee, consisting of Commissioners Ali Sadre and Elizabeth Mathieson, to participate in this process. He asked Senior Structural Engineer Fred Turner to discuss SB 113 in more detail.

Mr. Turner referred to the information under Tab G of the meeting packet. He noted that the UC Berkeley stadium straddling the Hayward Fault was constructed in the 1920's. Because the structure has been rated unsafe, UC Berkeley obtained funding to retrofit the building and add a new press box, plaza level, concourse, and multi-tiered seating area. In the course of designing the project, UC realized that the work would not be consistent with the Alquist-Priolo Act's prohibition against building on an active fault and its 50 percent cap on retrofit investment. The exemption was sought to allow the project to move forward.

Mr. Turner advised that the number of historic state-owned buildings potentially exempted has not yet been determined. He suggested that the Commission attempt to determine the extent of the new law and identify possible modifications to maintain seismic safety.

Mr. Turner said UC and other state agencies have a proposal before the California Building Standards Commission to modify the California Building Code to allow existing buildings to accommodate fault offsets that have a 1,000-year recurrence. The State Geologist is opposing this change, and UC is meeting with stakeholders to initiate a dialogue on the proposal.

Chairman Church appointed Commissioners Sadre and Mathieson to serve as an ad hoc committee to study the matter and make recommendations to the Commission.

Mr. Turner introduced Claire Chung, a geophysics extern from UC Berkeley who was attending the meeting to observe the Commission's deliberations. He said Ms. Chung has an interest in earthquake policy matters, and he encouraged commissioners to chat with Ms. Chung during the lunch recess.

VIII. REVIEW OF SAN FRANCISCO PUBLIC UTILITIES COMMISSION WATER SYSTEM IMPROVEMENT PROGRAM (Out of Order)

Mr. Turner noted that Commissioners Mathieson, Littrell, and Sadre had served on an ad hoc committee reviewing and assessing the latest changes to the San Francisco Public Utility Commission's (SFPUC's) water system improvement program. He drew attention to the draft comment letter to the Joint Legislative Audit Committee under Tab I of the meeting packet.

Commissioner Littrell explained that the committee's task was to review the progress of the program and evaluate the impact of the changes on the schedule and scope of work.

Mr. Turner referred to the comments on Pages 3 and 4 of the comment document regarding the schedule and scope of the program. He advised that the committee determined the proposed modifications would delay some key seismic projects by about three years and increase risk 3 to

6 percent. He noted that Appendix A has a chart showing estimated completion dates for each project.

Mr. Turner said the committee identified three issues that should be reviewed by the SFPUC's Seismic Safety Task Force, and he drew attention to Item 3 on Page 4. He noted that the committee made other comments regarding public information and outreach and strong motion instrumentation. He indicated that a summary of the committee's conclusions appears on Page 5.

Ms. Julie LaBonte, Director, Water System Improvement Program, San Francisco Public Utilities Commission (SFPUC), pointed out several factual inaccuracies in the comment document. Referring to the discussion of level of service goals on Page 2, she clarified that the original goals were never changed, but winter demand had been updated. With respect to scheduling delays, she recommended comparing the schedule to the 2005 revised program rather than the original 2002 plan. Ms. LaBonte pointed out that the SFPUC has made significant progress in completing environmental reviews, with 10 environmental impact reports (EIR's) having been certified, 4 draft EIR's out for public review, and no legal challenges to any of the EIR's.

In response to the first recommendation on Page 4, Ms. LaBonte explained that the SFPUC believes it would be better to spend scarce resources to implement improvements rather than to quantify risks, because knowing the exact level of risk will not change the implementation approach anyway.

Referring to the recommendations regarding the Seismic Safety Task Force, Ms. LaBonte advised that the SFPUC hired individual quality control consultants to review the Alameda Siphon Project and alternative connections between the Sunol Valley Water Treatment Plan and the Irvington Tunnel, and two members of the task force were involved in the review of the Harry Tracy Water Treatment Plant.

Referring to the last sentence on Page 4, Ms. LaBonte clarified that winter demand will actually be restored in 24 hours, not 30 days.

Ms. LaBonte provided an update on progress on the water system improvement program since last February. She reported that construction had started on 13 projects, representing an investment of \$428 million, and three contracts were executed for a fifth Bay pipeline/tunnel, representing \$600 million. She said the SFPUC hired an independent review panel to evaluate its performance and assess its future abilities, and that panel released preliminary results in mid-December with very positive conclusions. She added that the panel's complete findings will be presented at the January 26 meeting of the SFPUC, and she invited interested commissioners and staff to attend.

Ms. LaBonte asked the Commission to consider incorporating her responses before adopting its final report.

Commissioner Littrell expressed support for including some of Ms. LaBonte's responses in the report with respect to the SFPUC's mitigation activities. He proposed citing the original level of

service goals and changes; mentioning that environmental reviews cause delays, but pointing out the extent of mitigation that has occurred; having the task force assess the overall reliability of the system in light of the delays; recommending that the entire task force, not just two members, review the Harry Tracy Water Treatment Plant project; and updating the report to reflect restoration of winter service levels within 24 hours.

Mr. Turner advised that the Commission is required by state law to assess scheduling impacts based on changes since the original 2002 plan rather than the 2005 revised program. He noted that the table in the appendix compares the proposed schedule with the 2007 schedule. He added that there have been minor changes in level of service goals. Ms. LaBonte clarified that the level of service goals have not changed since 2005.

Commissioner Littrell recommended making the point that the 2002 program is substantially different from the current program.

Mr. Turner said he was confident the staff could work with the SFPUC and stakeholders to craft mutually acceptable revisions. Ms. LaBonte agreed.

Commissioner Littrell expressed his opinion that that Ms. LaBonte's points were well taken and should be incorporated. Mr. Turner recommended adopting the report with the revisions proposed by Commissioner Littrell.

ACTION: Commissioner Littrell made a motion, seconded by Commissioner Thorman, that:

The Commission adopt the committee's report with revisions to include a more accurate recap of the level of service goals and changes; an accurate recap of the schedule revisions; an acknowledgment that although the environmental permitting process is creating some delays, significant progress has been made; a recommendation that the task force assess the overall impact of the proposed delays; a recommendation that the task force review and report on the Harry Tracy Water Treatment Plan project; and the SFPUC's commitment to restore winter service levels within 24 hours.

Mr. Turner said the staff, committee, and SFPUC staff will work together to incorporate the revisions proposed.

* Motion carried, 8 - 0 (Commissioner Walls absent during voting).

Chairman Church expressed his appreciation to the ad hoc review committee and the SFPUC representatives for their hard work.

VII. REVIEW AND APPROVAL OF SEISMIC SAFETY COMMISSION 2009 ANNUAL REPORT

Administrative Manager Karen Cogan presented the final version of the 2009 annual report. She said the document incorporates all comments submitted by commissioners, and she requested approval.

ACTION: Commissioner Chubb made a motion, seconded by Commissioner Christina Curry, that:

The Commission approve the 2009 annual report as presented.

* Motion carried, 8 - 0 (Commissioner Walls absent during voting).

IX. FERNDALE EARTHQUAKE

Mr. Turner provided an update on the effects of the 6.5 magnitude earthquake that struck the offshore area near Ferndale on January 10. He noted that this part of California is sparsely populated, so damage was not extensive. He reported that there were about 300 damaged buildings, of which only three were red-tagged, and 30 injuries. He said one unreinforced masonry building crushed an adjacent building and a car, and a number of brick chimneys failed. Mr. Turner showed slides of damaged buildings and liquefaction. He stated that the Ferndale earthquake was only about 1/5 to 1/10 the size of the San Simeon earthquake.

Commissioner Thorman advised that there was little damage to local schools, but one school had some plaster damage in its gymnasium.

Mr. Turner said the Arcata Hospital had a loss of power, and the Office of Statewide Health Planning and Development is investigating that problem.

X. SOLOMON ISLANDS AND HAITI EARTHQUAKES

Senior Engineering Geologist Robert Anderson gave a briefing on the January 12 magnitude 7.0 earthquake in Haiti and the January 3 earthquake and tsunami in the Solomon Islands. He said over 200 houses were damaged in the Solomon Islands and considerable damage was caused by a tsunami that traveled about a mile inland.

Mr. Anderson stated that there were not yet any reliable estimates of fatalities or damage in Haiti. He explained that the earthquake was a slip-strike event on a well known on-shore fault. He noted that the earthquake caused an undersea landslide that generated a small tsunami.

Mr. Anderson said the damage in Haiti will be very severe because of that nation's poverty, absence of building codes, and limited emergency response resources. He observed that although there was widespread damage to buildings, most of them are constructed of flimsy and lightweight materials, which means lower risk to life safety. He noted that Haiti has no water or natural gas infrastructure, and there were only a few fires following the earthquake.

Mr. Anderson reported that the U.S. pledged \$100 million in aid, and the U.S. military and many humanitarian organizations are sending rescue teams and resources. He said it is up to the Haitian government to request and accept offers of help.

Chairman Church thanked Mr. Turner and Mr. Anderson for their reports.

At 11:10 a.m. the Commission recessed for lunch.

XI. WORKSHOP: GOVERNOR'S BUDGET AND IMPACTS ON COMMISSION'S GOALS

At 11:58 a.m., Chairman Church reconvened the Commission for a workshop session.

Mr. McCarthy said the Commission is preparing for a 5 percent reduction in personal services this fiscal year and another 5 percent reduction next fiscal year.

Chairman Church commented that it would be helpful to develop a cost-benefit study to demonstrate the value of the Commission to the insurance industry.

Mr. McCarthy invited former Commissioner Don Parker to discuss the issue of fire following earthquake in more detail.

Mr. Parker said experts estimate that a major earthquake in the Los Angeles area could cause as many as 1600 fires, which could spread and become huge conflagrations because there will be insufficient firefighting resources to combat them all. He noted that the problem is worse in densely populated areas with older building stock. He stated that insurers could suffer losses of up to \$100 billion because, unlike earthquake damage, most fire damage is covered by insurance policies. He proposed that the Commission use the research program to explore ways to mitigate post-earthquake fire damage.

Commissioner Michael Stevens expressed support for the idea of conducting a cost-benefit study to better quantify the value of the Commission's activities for the insurance industry. He observed that many homeowner insurance policies have earthquake damage exclusions, but fire is a covered peril, so reducing the risk of fire is a key concern. He said mitigation could include installing gas shut-off valves and reinforcing weak buildings.

Mr. McCarthy reported that the Commission-sponsored household mitigation survey had just been approved by the Governor's Office, and he said he would provide copies to the insurance industry group.

Mr. Parker said a study of the 1868 Hayward earthquake indicated that losses from fire alone were about \$20 billion. He added that there are qualified research firms who could perform the necessary work but hiring a private entity would be more complicated than using a state university or public agency. Commissioner McCarthy noted that UC Riverside has a fire lab and Mr. Turner said UC Berkeley also has a fire lab.

Mr. Parker emphasized the need for better relationships with utilities. He reported that PG&E and other utility companies are opposed to installation of gas shut-off valves because of the effort and cost it would take to have to relight gas pilot lights after a major event. He noted that an alternative might be for fire stations to work with utility companies to train firefighters to perform this service. Mr. Turner observed that modern gas systems do not require relighting of pilot lights, so this is likely to be less of a problem in areas of new construction.

There was consensus among commissioners that the Seismic Safety Commission should pursue research on the subject of fire following earthquake. Mr. McCarthy said he would discuss this idea with the insurance industry group. Mr. Parker volunteered to help the Commission present the idea to the insurance industry.

Mr. McCarthy expressed his opinion that studying fire following earthquake would be a good use of research funds.

XII. MEETING DATES, TOPICS, AND LOCATIONS FOR 2010

Chairman Church welcomed discussion of possible meeting dates, topics, and locations. He suggested traveling to El Centro this year to mark the anniversary of the 1940 Imperial Valley earthquake. Commissioners identified Santa Barbara and San Luis Obispo as possible meeting sites because of their proximity to the Diablo Canyon nuclear power plant. Ms. Cogan noted the Commission has not visited the Bakersfield, Fresno, or other communities in the Central Valley. Other location commissioners proposed were Eureka, Newport Beach, Lake Tahoe, and San Diego.

Commissioners indicated that all the proposed meeting dates were acceptable.

Mr. McCarthy thanked commissioners for their ideas and welcomed further suggestions. He said the staff will investigate out-of-town locations for the March meeting and let commissioners know.

XIII. SHAKEOUT PARTICIPATION FOR 2010

Mr. McCarthy said he and Ms. Cogan met with organizers of the Southern California Shakeout to discuss plans for 2010. He noted the Southern California event in 2008 led to a statewide drill in 2009, and a similar statewide effort is planned for October 21, 2010.

Mr. Anderson said a group of scientists in Italy has been working to develop a global earthquake loss model. He suggested that the Commission become involved in the project, and noted that the California Earthquake Authority is seeking a meeting with the Italian scientists. Mr. Anderson observed that there are a number of existing loss estimation models, but their transparency has been an issue because the underlying software is proprietary. Mr. Anderson remarked that fire following earthquake could be an important part of the modeling effort.

XIV. ADJOURN

There being no further business, Chairman Church adjourned the meeting at 12:39 p.m.

Sue Celli
Office Manager

Approved by:

Richard McCarthy
Executive Director