Item G

State Of California

ALFRED E. ALQUIST SEISMIC SAFETY COMMISSION

Governor Edmund G. Brown Jr.

Alfred E. Alquist Seismic Safety Commission
Minutes of Meeting
May 12, 2011
Delta King Hotel, 1000 Front Street, Sacramento, California

Members Participating

Mark Church, Chairman
Kandiah "Arul" Arulmoli
Christina Curry
Ronald Garcia
Michael Gardner
Helen Knudson
Sharron Leaon
John Littrell
Emir Macari (arrived at 10:04 a.m.)
Elizabeth Mathieson
Gary McGavin
Mathew Ortiz
Ali Sadre
Kathy Smith
Howard Smith (arrived at 10:04 a.m.)

Members Absent

William Chubb, Vice Chairman
Jay Elbettar
John McPartland
Michael Stevens
David Walls

Staff Present

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

I. CALL TO ORDER/ROLL CALL

Commission Chair March Church called the meeting of the Alfred E. Alquist Seismic Safety Commission to order at 10:00 a.m. Administrative Manager Karen Cogan called the roll and confirmed the presence of a quorum.

II. CHAIRMAN'S REMARKS

Chairman Church welcomed commissioners, staff, and guests to the meeting.

Chairman Church commented that the March 11 earthquake and tsunami in Japan have raised awareness of seismic safety and preparedness issues as well as new concerns about the safety of nuclear power plans. He said the event again highlights the importance of the Commission's work.

Chairman Church stated that Governor Brown would be releasing his revised budget proposal on May 16. He noted that the state is facing a $26 billion deficit, and the revised budget is likely to include $11 billion in spending cuts.

Chairman Church introduced and welcomed Mr. Mathew Ortiz, Senator Alquist's new representative on the Commission.

Chairman Church thanked Ms. Cogan for making the meeting arrangements.

III. APPROVAL OF MARCH 2011 MINUTES

Commissioner Christina Curry pointed out a typographical error in the fifth line of the first full paragraph on Page 2: she noted the word "corking" should be "working."

ACTION: Commissioner Michael Gardner made a motion, seconded by Commissioner John Littrell that:

The Commission approve the March 10 minutes as amended.

* Motion carried, 14 - 0 (Commissioner Howard Smith absent during voting).

IV. EXECUTIVE DIRECTOR'S REPORT

Budget Update

Mr. McCarthy drew attention to the budget reconciliation handouts distributed to commissioners before the meeting. He noted that the Commission's budget is still in good shape for this fiscal year, with about $82,000 remaining for paying bills. He recommended that the Commission encumber approximately $62,000 to $65,000 this fiscal year to pay for accounting services provided by Contracted Fiscal Services at the Department of General Services during the 2011/12 fiscal year.

ACTION: Commissioner Sharron Leaon made a motion, seconded by Commissioner Emir Macari, that:

The Commission encumber funds for accounting services as recommended.

* Motion carried, 15 - 0.

Contract for IT Services

Mr. McCarthy reported that the staff was working on a long-term contract with AT&T for information technology services. He said the contract amount has not yet been determined, but more information will be available at the June 9 teleconference meeting.

Ms. Cogan explained that the state recently determined that consolidating email systems for state agencies will not save money after all, so the Commission needs to pursue its own IT solutions.

Research Program Special Deposit Fund Extension Request

Mr. McCarthy reported that he submitted a request and a letter of support to the Department of Finance asking for an extension of the research fund for another three years, and the request was granted, so the research fund will be available through 2015. He explained that the $6 million fund, scheduled to expire at the end of this fiscal year, was created as a result of a lawsuit settlement involving the Department of Insurance. For the past three years, the Commission has been using the money pay for and leverage a number of research projects that advance seismic safety. Mr. McCarthy cautioned that the state has been borrowing from special deposit funds to offset the budget deficit, and although the research fund has been left intact, it could be vulnerable to similar diversions in the future.

Commission Funding Prospects

Mr. McCarthy said the Commission's current funding arrangement with the Department of Insurance is due to expire on July 1, 2012, and the staff has been working diligently to find another permanent source of funds to keep the Commission going. He indicated that if a funding source is not included in the May revise of the state budget, the Commission will ask the Governor's Office to clarify its intentions in writing and then make plans accordingly. He promised to keep commissioners apprised of any developments.

Support for Renewal of National Earthquake Hazard Reduction Program, S-646

Mr. McCarthy said the Commission has been a long-time supporter of the National Earthquake Hazard Reduction Program (NEHRP) and its worthwhile programs. He indicated that the Governor's Office asked the Commission to provide a letter of support for NEHRP renewal, and he drew attention to the draft letter in the meeting packet. Mr. McCarthy recommended Commission approval.

ACTION: Commissioner Gardner made a motion, seconded by Commissioner Elizabeth Mathieson, that:

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

* Motion carried, 15 - 0.

Travel and Meeting Restrictions

Mr. McCarthy stated that all state agencies have been asked to reduce in-state travel costs and limit meetings, so the Commission will be holding more meetings in Sacramento and fewer in other areas of the state. He clarified that boards and commissions are still allowed to meet to conduct business pertaining to their core missions, but other activities such as conference

participation and out-of-state travel are generally prohibited. He indicated that he would forward copies of the latest instructions and guidelines to each commissioner.

Update on Commissioner Appointments

Mr. McCarthy advised that commissioners whose terms expire on May 15 should submit applications so they can be considered for reappointment. He noted that the Governor's Office was beginning to interview some candidates. He added that commissioners who are not reappointed can continue to serve through July 15.

Commissioner Gardner said he understood that recent appointees must be confirmed by the Senate within one year. Mr. McCarthy confirmed that understanding. He clarified that new appointees have one year from their appointment date to be confirmed by the Legislature; otherwise, they are dropped from the Commission.

V. CALIFORNIA EARTHQUAKE AUTHORITY SEISMIC MITIGATION PROGRAM UPDATE

Mr. McCarthy invited Mr. Tim Richison, Chief Fiscal Officer, California Earthquake Authority (CEA), to provide an update on the status of the CEA's seismic mitigation program. He also referred to the resolution of support in the meeting packet.

Mr. Richison remarked that the CEA has been struggling in recent years to develop a statewide mitigation program. He said he was pleased to announce that the CEA was ready to launch its statewide Residential Retrofit Brace and Build (R2B2) program this year. He noted that the state's multi-hazard mitigation plan already contains a reference to the residential retrofit program.

Mr. Richison stated that the R2B2 program is based on the Federal Emergency Management Agency's Project Impact. He said the CEA set the stage for the R2B2 program by holding workshops, working to get residential retrofit provisions incorporated in the California Building Code, and obtaining authorization for CEA to hire a chief mitigation officer to administer the program. He reported that Ms. Janiele Maffei was recently hired to fill that position, and funding for the R2B2 program has been approved.

Mr. Richison advised that the retrofit program will be overseen by CEA and the California Emergency Management Agency (CalEMA) through a joint powers authority (JPA). He said CEA is identifying potential candidates to serve on the JPA board, and the group will be holding its first meeting soon. He noted that the CEA has issued a request for quotations for a statewide administrator, and the program will get underway as soon as that contract is finalized.

Mr. Richison indicated that the R2B2 program will offer incentives to encourage contractor participation. He described how the program will be marketed in radio ads, television announcements, and newspaper articles.

Mr. Richison asked for the Commission's support of Senate Bill 637, a proposal introduced by Senators Boxer and Feinstein to relieve CEA expenses by allowing debt to be sold to U.S. and foreign investors. Under the terms of SB 637, the federal government would insure the debt, so CEA could reduce by half the amount it spends on reinsurance each year. This would enable CEA to offer lower premiums, lower deductibles, and better contents coverage to consumers. Mr. Richison observed that high premiums and deductibles have deterred many homeowners from buying earthquake insurance.

ACTION: Commissioner Leaon made a motion, seconded by Commissioner Arul Arulmoli, that:

The Commission support SB 637 as requested.

* Motion carried, 15 - 0.

VI. BRIEFING ON THE MARCH 11, 2011 TOHOKU EARTHQUAKE AND TSUNAMI

Dr. Steve Mahin, Pacific Earthquake Engineering Research Center (PEER), reported that PEER and the Earthquake Engineering Research Institute (EERI) sent a reconnaissance team to Northeast Japan to investigate the impacts of the March 11 magnitude 9.0 earthquake and resulting tsunami. He said the devastating event caused the worst damage seen in modern times, with 13,000 to 14,000 people confirmed dead, 26,000 people injured, and economic losses up to $300 billion, and recovery costs estimated at $600 billion. Over 100,000 buildings were seriously damaged by the tsunami, and 8,000 more were flooded.

Dr. Mahin showed slides depicting earthquake faults in and near Japan, and he pointed out similarities with California's faults. He noted that eastern Japan has some unusual ground motion characteristics that tended to exacerbate liquefaction and soil instability issues. He said the earthquake rupture zone was 500 kilometers long, shaking lasted over three minutes in the epicentral area, and peak ground acceleration levels there were as high as 2.9 g. He stated that there were actually three large earthquakes in a row, and tall buildings in downtown Tokyo continued shaking long after the earthquakes occurred.

Dr. Mahin noted that the March 11 earthquakes had a 90 percent probability of occurring, so the event was not unexpected, although it was larger than anyone anticipated. The major source of damage to buildings was soil liquefaction and differential settlement, and vulnerable older buildings and nonductile concrete structures suffered the most damage. Dr. Mahin indicated that there was relatively little damage on stable ground, although many buildings had nonstructural damage to suspended ceilings, sprinklers, facades, and unbraced equipment. He added that a series of large aftershocks caused cumulative and repeated damage, and lifelines and transportation systems were seriously disrupted, causing widespread interruption of businesses. Dr. Mahin reported that the tsunami that swept the area after the earthquakes was over 35 meters high, and most of the damage was caused by debris flows rather than flooding.

Dr. Mahin showed slides depicting damage to buildings, bridges, roadways, and manufacturing facilities.

Dr. Mahin discussed impacts on Japan's electrical power system, noting that 11 percent of the nation's power generation capabilities were lost. He said eight fossil fuel plants and one nuclear plant were shut down, and three more nuclear power plants are closed for retrofit work. Due to the reduced availability of power, the government mandated reductions in electrical usage and regular brownouts, a condition likely to continue until power plants are back in operation. Dr. Mahin reported that there were 260 fires immediately following the earthquake and 345 fires that occurred later.

Dr. Mahin advised that the reconnaissance team found that good engineering and strict regulations make a significant difference in damage levels, and well designed and well constructed buildings and structures generally performed well. He said there are some key differences between technology and policy development in the U.S. and Japan: while the U.S. has focused on ensuring a minimal level of life safety and functionality after earthquakes, Japan has worked to prevent business interruption and social disruption. Dr. Mahin observed that designing buildings for post-earthquake resiliency entails some additional incremental costs, but the result is a substantial improvement in performance. He added that the PEER-sponsored Tall Buildings Initiative will help address this issue in California.

Dr. Mahin said that in an earthquake as large as the March 11 event, people should prepare to be self-sufficient and live independently for at least three weeks because official government response capabilities are likely to be impaired.

Chairman Church thanked Dr. Mahin for his presentation.

VII. UPDATE ON ECONOMIC RECOVERY AND RESILIENCY ACT - RESTORING CALIFORNIA COMMERCE AFTER EARTHQUAKES

Mr. McCarthy reported that the effort to work with California industries to address post-earthquake recovery needs was going well, and a meeting would take place soon. He said a number of large companies have been briefed and may be interested in participating. They include: the Deloitte accounting firm, Lloyds of London, Farmers Insurance, Willis, Re Disney, and representatives of the dairy and agricultural industries. He added that he would have more to discuss at the June meeting.

At 12:08 p.m., the Commission recessed for lunch. Chairman Church reconvened the meeting at 1:22 p.m.

VIII. RESEARCH FUND PROJECTS UPDATE

Current Projects

Prop. 1D Seismic Retrofit

Mr. David Zian, Chief of Program Services, Office of Public School Construction (OPSC), gave a final report on the disposition of the Commission's $200,000 grant to develop a template to help school districts conduct seismic evaluations of vulnerable buildings in order to qualify for Proposition 1D seismic retrofit funding. He stated that nine districts with 38 vulnerable buildings expressed interest in participating, and 21 of the buildings were identified as eligible for Proposition 1D seismic retrofit funding, for a 55 percent success rate. He reported that an additional site in West Contra Costa County was approved for evaluation.

Mr. Zian noted that the Commission's $200,000 grant jump-started the Proposition 1D grant program. He said there are now four projects underway in three districts, and estimated retrofit costs for this group are $19 million. He estimated that total repair costs for the 21 eligible buildings would be $80 million, of which the seismic retrofit component would be about $28.9 million.

Mr. Zian advised that $77,347 of the Commission's $200,000 grant had not been spent, and he recommended that the Commission allow OPSC to retain those funds for further outreach and up to 27 additional reviews. He said OPSC would like to extend the engineering contracts to year-end. He indicated that OPSC was able to negotiate a reduced price of $2800 per review from ABS Consulting. Mr. Zian asked the Commission to augment the $77,347 with an additional $50,000 for up to 45 additional reviews.

ACTION: Commissioner Gary McGavin made a motion, seconded by Commissioner Ali Sadre, that:

The Commission allow OPSC to retain the remaining funds and allocate an additional $50,000 for more projects.

* Motion carried, 13 - 0 (Commissioners Emir Macari and Kathy Smith absent during voting).

Mr. Zian reported that there has been considerable discussion about revising the eligibility criteria so more buildings can qualify for Proposition 1D funds. He said the State Allocation Board's subcommittee will be meeting on May 18 to consider various alternatives.

Commissioner Howard Smith said the Division of the State Architect provided information to the subcommittee about revising the criteria to include reinforced masonry and buildings with cast-in-place walls with flexible diaphragms, and to lower the spectral acceleration threshold to 1.6 or 1.55.

Commissioner McGavin noted that some school districts have already retrofit buildings at their own expense, and he asked about the possibility of obtaining reimbursement from Proposition 1D funds. Mr. Zian replied that reimbursement is available under Proposition 1D, but OPSC would have to look at the candidate buildings and verify that they meet the criteria.

Mr. Zian said OPSC has talked about lowering the spectral acceleration threshold incrementally at six-month intervals to see if more districts would apply, but no definite decision has been made. He added that the intent is to make funds available on a first-come, first-served basis. Commissioner Garcia commented that it might be better to prioritize projects to ensure the most benefit for the money spent rather than distributing funds on a first-come, first-served basis. Mr. Zian stated that there is currently no system of prioritizing projects by size or value. He added that applicants must go through several layers of approval, and some districts are not able to move fast enough to qualify.

Mr. McCarthy asked about the possibility of another school retrofit bond in the future. Mr. Zian replied that there has been some discussion about another bond issue, but that may be unrealistic given the state's fiscal crisis. He indicated that bonds are issued in two-year cycles, so it will be at least 2012 before another bond could be considered. Mr. McCarthy observed that this program will help facilitate distribution of future bond funds.

Lake Tahoe Hazard Study

Senior Engineering Geologist Robert Anderson informed the Commission that the Lake Tahoe hazard study has encountered a construction and personnel-related delay, so field testing of the remotely operated vehicle will not take place until September. He said a sensor being built into the ROV cannot be manufactured until June, and the two principal contractors will doing field work in the Arctic at that time.

Fire Following Earthquake Risk

Structural Engineer Henry Reyes noted that the Commission approved a $49,000 contract with PEER last June to conduct a study of California's emergency water supplies and recommend improvements. He said the issue of fire following earthquake is a major problem in urban areas, especially with tall buildings. He reported that PEER started work last September, and the completion deadline was extended to September 30, 2011. Mr. Reyes added that Dr. Charles Scawthorn will be present at the July meeting to provide an update.

Public Education and Outreach Project

Mr. McCarthy stated that the Commission received a briefing on the Public Broadcasting System's public education and outreach project at the March meeting in San Francisco, and a further update on pilot projects will be presented in July. He reported that the contractor was videotaping interviews, and the project would be completed by the end of 2011.

Projects Under Development

Improvements to the Building Safety Assessment Project

Senior Structural Engineer Fred Turner recommended that the Commission authorize the staff to proceed with development of a scope of work and an interagency agreement to enhance CalEMA's Building Safety Assessment Program and apply lessons learned in the recent earthquakes in New Zealand and Japan. He said California has a cadre of 7,000 trained and credentialed volunteers ready to assess and placard buildings after earthquake. They follow inspection protocols developed in the 1980's by the Applied Technology Council that were last updated in 1995. The Commission's contribution will provide for a number of refinements to the program to better deal with re-evaluations and procedures following aftershocks, including improvements in rapid response practices; more accurate tagging of damaged buildings; better safeguards and stabilization practices to protect volunteers; and revised forms, procedures, protocols, policies and training resources.

Mr. Turner referred to the written project description in the meeting packet. He proposed allocating a total of $50,000 for this project, and he welcomed Commission direction.

ACTION: Commissioner McGavin made a motion, seconded by Commissioner Gardner, to direct the staff to proceed with developing a scope of work and an interagency agreement for this project.

* Motion carried, 13 - 0 (Commissioners Macari and Kathy Smith absent during voting).

Survey of Hospital Evacuations after Recent Earthquakes

Mr. Turner presented a proposal for a research project to document recent hospital evacuations and learn more about the decision-making process followed by hospital administrators. He recommended that the Commission allot $50,000 to PEER to send surveyors to hospitals in El Centro, Mexicali, New Zealand, and possibly Japan to capture these important lessons learned while the information is still available. He said New Zealand will be contributing $20,000 toward this effort, and the National Science Foundation has committed $50,000, so the Commission's funds would be leveraged at a ratio of 2.4 to 1. He added that the current project scope does not include Japan, and adding Japanese hospitals would increase the estimated costs.

ACTION: Commissioner Arulmoli made a motion, seconded by Commissioner Ortiz, that:

The Commission authorize the staff to enter into negotiations to develop this project as proposed.

* Motion carried, 12 - 0 (Commissioners Garcia, Macari, and Kathy Smith absent during voting).

Tsunami Risk to San Diego Bay

Mr. McCarthy advised that he was working with U.S. Navy representatives to obtain data on their performance requirements for Navy facilities within the San Diego Harbor. He said modeling possible events from Pacific Rim sources will be the next step toward assessing tsunami risks to San Diego Bay. He noted that this research will benefit the Navy and the Coast Guard. Mr. McCarthy added that the project will be coordinated with the California Geological Survey and CalEMA to avoid duplication of efforts and resources. He indicated that no Commission action was required at this time.

IX. LEGISLATIVE UPDATE

Legislative Manager David King referred to his written report for a description of the pending bills being tracked by the Commission staff. He drew attention to AB 184, which provides contractual assessment for seismic retrofit work. He noted that this bill was vetoed by Governor Schwarzenegger last year, but it is expected to pass this year. He said another bill the staff is following is SB 301, which proposes clean-up language regarding seismic retrofits.

Mr. King reported that the Commission staff participated in Senator Corbett's recent hearing on earthquake preparedness for the agricultural industry.

X. PUBLIC COMMENT

Mr. Steve Pelham, structural engineer and current president of the Structural Engineers Association of California, said a number of school districts in California are concerned about the negative publicity resulting from having buildings on the AB 300 list of vulnerable schools. He recommended that the Commission consider establishing a process to remove buildings from the list if they meet certain criteria and if their districts can demonstrate that the buildings are not actually hazardous.

Chairman Church thanked Mr. Pelham for bringing this issue to the Commission's attention and said the Commission will take his suggestion under advisement.

XI. GOOD OF THE MEETING

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

XII. ADJOURNMENT

There being no further business, Chairman Church adjourned the meeting at 2:08 p.m. in memory of former Commissioner Leroy Crandall, who died on April 3 at the age of 94. He said Commissioner Crandall was appointed by Governor Brown and reappointed by Governor Deukmejian and was a staunch advocate for seismic safety.

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Sue Celli
Office Manager

Approved by:

_____
Richard McCarthy
Executive Director