
State of California
Seismic Safety Commission
Annual Report for 2002
(2001-2002 Legislative Session)



Publication 2003-01

California Seismic Safety Commission
January 2003

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January 10, 2003

The Honorable Gray Davis, Governor
Members of the California State Legislature
State of California
State Capitol
Sacramento, CA 95814

Dear Governor Davis and Members of the State Legislature:

The Seismic Safety Commission is pleased to present our Annual Report. This report covers the Commission's earthquake risk reduction activities during the 2002 calendar year.

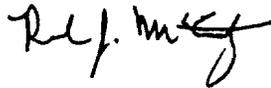
Among the most significant policy issues addressed by the Commission was AB 16 (Herzberg). That legislation directed the Commission to study existing buildings that could be retrofitted to meet earthquake safety standards equivalent to buildings constructed in compliance with the Field Act. This issue is critical because of the shortage of school facilities and sites for new construction. The Commission submitted the report to your office in late December.

As you are aware, the risk of damage to property and loss of life from earthquakes should not be underestimated. Even though California leads the world in seismic safety, we must not become complacent about the seismic risks that face the people and property of California. Many critical issues still need to be addressed. We must remain forward thinking about earthquake loss reduction and continue to lead the world in applying cost-effective, innovative solutions to reduce our losses. The Commission continues to encourage efforts in the private sector and by state and local agencies, to ensure that seismic safety remains a priority.

Sincerely,



Dr. Bruce Clark, Chairman



Mr. Richard J. McCarthy, Executive Director

Mission Statement

To provide decision-makers and the general public with cost-effective recommendations to reduce earthquake losses and speed recovery.

Commission Membership

Dr. Bruce Clark, Chair	<i>(Geology)</i>
Stan Y. Moy, Vice Chair	<i>(Architectural Planning)</i>
Andrew A. Adelman	<i>(Cities/Bldg. Official)</i>
Senator Richard Alarcon	<i>(Senate)</i>
Assemblywoman Elaine Alquist	<i>(Assembly)</i>
Douglas E. Mochizuki	<i>(Emergency Services)</i>
Ashok S. Patwardhan	<i>(Mechanical Engineering)</i>
Lawrence Klein	<i>(Utilities)</i>
Supervisor Mark Church	<i>(Local Government)</i>
Linden Nishinaga	<i>(City Government)</i>
Daniel Shapiro	<i>(Structural Engineering)</i>
Supervisor James Beall	<i>(County Government)</i>
Dr. Lucile M. Jones	<i>(Seismology)</i>
Donald R. Parker	<i>(Fire Protection)</i>
Celestine Palmer	<i>(Insurance)</i>
Vacant	<i>(Soils Engineering)</i>
Vacant	<i>(Social Services)</i>

Seismic Safety Commission Role, Responsibilities and Ongoing Activities

The California Seismic Safety Commission was established in 1975 to advise the Governor, Legislature, state and local agencies, and the public about strategies to reduce earthquake risk (Government Code Section 8870, et seq.). The Commission is an independent agency composed of 17 commissioners chosen for their technical expertise and experience. The Governor appoints fifteen commissioners, and the Senate and the Assembly each choose a representative from their respective membership.

The Commission investigates earthquakes, reports on earthquake-related issues, and evaluates and recommends to the Governor and Legislature policies needed to reduce earthquake risk. To ensure a coordinated framework for establishing earthquake safety policies and programs in California, the Commission:

- Uses the expertise of its members' experience in earthquake-related fields, to review, evaluate, and translate technical information and make recommendations to propose, develop and shape earthquake safety policies;
- Coordinates the State's mitigation efforts through publication and promotion of the *California Earthquake Loss Reduction Plan* as required by the California Earthquake Hazards Reduction Act of 1986. This continually-updated five-year plan fills several needs:
 - (1) *California's Earthquake Loss Reduction Plan* is the State's policy statement describing what needs to be done to reduce earthquake risk;
 - (2) The Plan serves as the State's strategic plan, guiding the executive and legislative branches with overall implementation strategies and priorities for seismic safety; and
 - (3) The Plan serves as California's official response for a federally-required hazard mitigation plan for earthquakes, making the state eligible to apply for federal disaster relief funds after major earthquakes.
- Responds promptly after earthquakes to gather new information, support emergency response efforts, improve communications, and recommend policy changes to apply lessons learned from these events;
- Creates and directs specialized committees of experts from the private and academic sectors and representatives of state and local government agencies, directing those committees to investigate specific policy areas and recommend regulatory changes and legislation to the full Commission and Legislature for action;
- Exercises leadership in seismic safety issues by conducting public hearings on earthquake-related topics;
- Offers guidance to increase effectiveness and promote application of loss reduction policies and techniques;
- Educates professionals and the general public about earthquake risk and how to manage that risk through publications and development and distribution of non-technical guides to help homeowners, building owners, and business owners;
- Establishes and maintains relationships with boards, commissions, departments, agencies and other public and private organizations to implement policies to improve seismic safety;

- Promotes applied research and sponsors training programs to improve construction in the State ranging from the planning stage to ongoing code enforcement.

Seismic Safety Legislative Summary for 2001-2002

During the 2001-02 session, the Commission sponsored eight legislative bills - twice the volume of Commission-sponsored bills as the 1999-2000 session. Of the eight bills sponsored, the Governor signed three into law. The Commission recommended formal positions on 34 other bills. Bills signed in 2002 by the Governor included:

AB 16 (Herzberg) enacts the Kindergarten-University Public Education Facilities Bond Act of 2002 & 2004 and authorizes the issuance of \$25 billion in state general obligation bonds to finance the new construction and modernization of schools. This bill directed the Commission to convene an Advisory Group to study the feasibility of a process by which existing buildings that do not conform to the Field Act may be converted to public school facilities without compromising pupil safety. The Law requires the Advisory Group to present its findings to the Commission by December 31, 2002. The Commission must report to the Governor and Legislature by January 8, 2003. AB 16 did not include any additional funding to the Commission to conduct the study but authorized the Commission to be reimbursed in 2002-03 for its expenses out of the proceeds from the sale of the State bonds.

AB 1000 (Simitian) allows three Community College districts (Los Angeles, San Jose and San Mateo) to enter into design-build contracts for campus projects exceeding \$10 million. In addition, the Chancellor of Community Colleges system may select up to five campus projects that may enter in design-build contracts for the construction or renovation of campus facilities. The bill requires the Community Colleges Board of Governors to develop guidelines for design-build projects by June 30, 2003. The guidelines are to be developed in consultation with specified state agencies, including the Commission.

AB 1402 (Simitian) allows local school districts to enter into design-build contracts for projects exceeding \$10 million, subject to approval of plans by the State Architect. The bill requires the Superintendent of Public Instruction to develop guidelines for design-build projects. A special committee, consisting of specified state agencies, including the Commission, developed the guidelines by the June 30, 2002 deadline.

AB 1823 (Papan) requires that the City and County of San Francisco submit annual reports to the Commission describing the progress on public works projects (including seismic improvements) on the Hetch Hetchy Water system. In addition, the City is to submit to the Commission special reports describing any scheduling changes to, or project deletions from the 2002 capital improvement plan. The bill directs the Commission to submit comments on those changes to the San Francisco Public Utilities Commission and the Legislature within 90 days of receipt. The bill also requires San Francisco to reimburse the Commission for its costs

related to reviewing and responding to reports received from the City.

AB 2002 (Alquist) directs the Commission, in consultation with the Office of Emergency Services, to establish a USAR Emergency Response Advisory Committee to prepare and submit a strategic plan with recommendations. The Advisory Committee's report is due September 2003.

The following 2001-02 Commission-sponsored legislative proposals failed to be reported out of committees:

- Regulation of warehouse high storage racks;
- Tougher enforcement of school-based seismic safety drills, training and supplies;
- Development of a statewide disaster recovery plan.
- Secured ongoing funding for the Commission's Earthquake Emergency Investigations Account; and
- California Seismic Safety Bond Act of 2002 (\$600 million in State general obligation bonds to finance seismic improvements of local government buildings and residential housing).

New Members

Governor Davis appointed four commissioners in 2002: Ms. Celestine Palmer (representing Insurance), Honorable James Beall, Jr., Supervisor, Santa Clara County (representing County Government), Mr. Donald R. Parker (representing Fire Protection), and Dr. Lucile Jones (representing seismology).

These commissioners brought in-depth knowledge and a strong understanding of seismic issues. Two positions remain vacant on the Commission: soils engineering and social services.

The Revised *California Earthquake Loss Reduction Plan*

The Commission released the revised *California Earthquake Loss Reduction Plan (2002-2006)* in April 2002. The Plan is required by the California Earthquake Hazards Reduction Act (*Government Code, Section 8870, et seq.*). It identifies earthquake risk reduction goals and priorities through 2006 for the State of California and current and proposed efforts, goals, and priorities of the State through 2006.

The Earthquake Loss Reduction Plan coordinates the State's mitigation efforts as required by the California Earthquake Hazards Reduction Act of 1986. The *California Earthquake Loss Reduction Plan* continues to be the State's policy statement describing what needs to be done to reduce long-term earthquake risk. It serves as the State's *Strategic Plan*, guiding the executive and legislative branches with overall implementation strategies and priorities for seismic safety and it serves as California's federally-required hazard mitigation plan for earthquakes, making the state eligible to apply for federal disaster relief funds after major earthquakes. Copies are available at the Commission office and on the website www.seismic.ca.gov.

Progress Report on *California Loss Reduction Plan*

The Commission is currently tracking the progress on the California Earthquake Loss Reduction Plan (CELRP) initiatives. The tracking document is distinct from the CELRP and is being developed to identify those initiatives that have been completed, are underway, or are inactive. This document serves as the annual progress report for the CELRP. Due to budget reductions in 2002, the Commission's resources were redirected from this task to complete the work of the AB 16 Taskforce. Work on the Progress Report was temporarily suspended. The Commission plans to return to the project in 2003.

Earthquake Safety of Private Buildings for Use as School Facilities (AB 16)

One of the most important activities the Commission was involved with in 2002 was AB 16 (Herzberg) that passed in 2002. That new Law required the Commission to appoint an Advisory Committee to study and report on whether the regulatory process may be developed that will allow existing buildings to be retrofitted to meet earthquake safety standards equivalent to buildings constructed in compliance with the Field Act. This is important due to the shortage of school facilities, predominantly in southern California. The Commission completed its review and submitted the report in December 2002, in advance of the statutory deadline of January 8, 2003.

The Advisory Committee conducted five meetings: Sacramento, Pomona, Oakland, San Diego, and Sacramento. The Committee reviewed the Division of the State Architect's process, consulted with design professionals and engineering researchers on technical knowledge, defined the term "equivalent earthquake safety performance standard," and solicited advice from policy stakeholders on matters regarding legal responsibilities and liabilities.

The Committee found the regulatory process can be developed, and included a summary of the facts and rationale supporting the finding as well as essential steps required in the process. The Commission's Vice Chairman Stan Moy chaired the Committee.

Earthquake Safety Issues for Gas Distribution Systems

On July 11, 2002, the Commission's Task Committee on Earthquake Safety Issues for Gas Systems held a public hearing on gas safety information for consumers and local governments.

The Commission formed the Task Committee on Earthquake Safety Issues for Gas Systems in 2001 to prepare gas safety information for consumers and local governments.

The Committee addressed risk management options including shake-actuated and excess flow valves. Among the expert witnesses testifying at the public hearing were Doug Honegger, Private Consultant, American Society of Civil Engineers; Mr. Richard Conrad, Principal Architect, Division of the State Architect; Mr. Ed Bortugno, Senior Geologist, Hazard Identification and Analysis Unit, OES Disaster Assistance Division Governor's Office of Emergency Services; Mr. John Zanzi, Chief Sebastopol Fire Department-California Fire Chiefs Association; and Mr. Massoud Abolhoda, Chief Building Official, City of Fremont. The Commission approved the Committee's report titled *Improving Natural Gas Safety in Earthquakes* in July 2002. The Committee also prepared an insert on gas safety for the Commission's *Homeowner's Guide to Earthquake Safety*.

Commissioner Stan Moy chaired the Committee managed by the American Society of Civil Engineers. The Southern California Gas Company and Pacific Gas and Electric Company provided initial funding.

Seismic Hazard Mapping Program

At the January Commission meeting, Mr. Charles Real, Supervising Geologist of the California Geological Survey Seismic Hazard Mapping Program, testified before the Commission on the Seismic Hazards Mapping Program, including an overview of newly released Seismic Hazard Mapping Zone maps for the San Juan Capistrano and Dana Point Quadrangles. Mr. Real updated the Commission on the disposition of future funding for the Program. The Program is facing a funding shortage starting in July 2003.

Second Review on Pacific Earthquake Engineering Research Center Update

The Commission's second report on Pacific Earthquake Engineering Research (PEER) Center and its on-going activities were approved unanimously at the Commission's January 2002 meeting. This report was subsequently issued to the State Legislature and to the Governor's Office in January 2002. The first report was completed in 1999. The Commission is under contract with the University of California at Berkeley, the host of the PEER Center, to prepare periodic progress summaries for the Legislature regarding PEER's projects.

PEER is an earthquake engineering laboratory located in Richmond, California and is funded \$2 million annually by the National Science Foundation, \$2 million annually by the State of California, and by funds from other private corporations. Investigators from over 20 universities and several consulting companies conduct research in earthquake related geohazard assessment, engineering seismology, risk reduction, and performance-based earthquake engineering.

Bay Area Rapid Transit

The Bay Area Rapid Transit (BART) launched a comprehensive Seismic Retrofit Program with assistance from the Seismic Safety Commission. The goal of the seismic retrofit program was 1) to determine the vulnerability of the BART system to a major earthquake, certain to occur during the lifetime of the system and 2) to determine the most cost effective measures that should be undertaken to reduce potential damage to the system to an acceptable level. The Commission undertook this task after concluding that the safety of the BART system in a major earthquake has economic and life safety implications for California. After researching the issue, the Commission recommended that BART do a Seismic Vulnerability Study, including a seismic risk analysis. This study was completed in mid 2002 and highlighted items relevant to policy decisions regarding funding levels for the BART Seismic Retrofit Program.

The Vulnerability Study considered all known active and potentially active faults in the Bay Area. From these, four scenario earthquakes were selected for evaluation of the seismic risk analysis of the BART system because they represent a bounding set of events that could cause the most damage to the BART system. Retrofit options and associated costs were identified and used to develop benefit-cost analysis/recommendations.

The Commission aided BART in establishing an independent technical Peer Review Panel to assist in the development and review of the Vulnerability Study.

OES-Japan's Shizuoka Prefecture Emergency Management Partnership Agreement

In a September 6th ceremony at the California State Capitol, the Prefecture of Shizuoka Japan and the State of California signed a Cooperative Agreement that established a formal and sustainable personnel exchange program for emergency management professionals. The agreement will allow experts from the Governor Davis' Office of Emergency Services to participate in the exchange and share knowledge on urban search and rescue, earthquake mitigation, and other emergency management practices and processes. The Commission's role with this venture will be to further the knowledge exchange between Shizuoka and California.

Japanese Translation of the *California Earthquake Loss Reduction Plan*

The Collaborative for Disaster Mitigation at San Jose State University successfully translated the *California Earthquake Loss Reduction Plan* into Japanese. This effort, funded by OES, will significantly improve communications with Japanese colleagues and further the continued strong relationship between California and Japan as achieved through past and current efforts in information exchange. The Plan will be distributed to Japanese professionals associated with earthquake hazard mitigation. For a copy of the Japanese version of the Plan, go to www.seismic.ca.gov/sscpub.htm

Institute for High Pressure Gas Safety for Japan

A meeting and reception for the High Pressure Gas Safety Institute of Japan was held in Sacramento on August 13, 2002. The purpose was to brief the Institute's representatives on seismic hazard and safety regulations for high-pressure gas systems and petrochemical facilities in California. Mr. Robert Anderson, Senior Engineering Geologist of the CSSC staff led the meeting. The Institute is considering submitting a proposal to the Japanese government to revise the seismic hazards regulations for petrochemical facilities (especially oil refineries) in Japan.

Hetch Hetchy Water Delivery System Seismic Issues

In May, the Commission participated in an educational tour and lecture of the Hetch Hetchy Water Delivery System, led by Commissioner Larry Klein, Public Utilities' representatives Ms. Patricia E. Martel, General Manager, and Mr. John Hetzner, Mechanical Engineer. Commissioners and staff participated in the day-long tour and returned with a better understanding of the seismic issues facing the San Francisco Public Utilities Commission and the System.

UC San Diego Structural Engineering Lab

The Commission participated in an educational tour and presentation of the UC San Diego Structural Engineering Laboratories, hosted by Dr. Frieder Sieble, Professor Engineering at UCSD. Dr. Frieder Sieble's presentation to the Commission focused on applied earthquake and structural engineering research, and examples of research and testing of bridge components, including the use of carbon fiber-reinforcing for bridge columns. The Commission gained an understanding of current research and testing of representative bridge components underway at UC San Diego.

Piston Coring Operations at Lake Tahoe

On August 8, 2002, Commission staff boarded the R/V Le Conte at Tahoe City. The Commission was invited by Dr. Graham Kent, Research Geophysicist and Dr. Jeff Babcock, Project Scientist of the Scripps Institute of Oceanography to observe piston coring operations in the northern part of Lake Tahoe to define seismic related hazards. The cores are used to help determine the age of faulting and the number of earthquakes that have occurred within the last several tens of thousands of years. The dating of the faults and the number of earthquakes identified on the faults will help identify the recurrence interval for earthquakes and help define the seismic hazard in the Lake Tahoe Basin and vicinity from the three principal faults within the Lake: the West Tahoe fault, the Stateline fault, and the Incline Village fault. Commission staff continue to monitor efforts within the Lake Tahoe Basin to define seismic related hazards.

Port of Long Beach Seismic Issues

Commissioner Linden Nishinaga arranged a tour of the Port of Long Beach on October 9, 2002. The Port of Long Beach is the second largest seaport in the United States. Together with the Port of Los Angeles, the Long Beach facility comprises the third largest seaport complex in the entire world behind only Hong Kong and Singapore. Consequently, their impact on the local and national economies is considerable. To accommodate their tremendous growth in cargo demands both ports have had to make major improvements to their infrastructure, facilities, and operations. The improvements required considerable planning, research, and innovations in design and construction methodologies involving state-of-the-art seismic engineering. The excursion gave an informative framework of the Southern California major seaports' seismic environment.

Applied Earthquake Hazard Mitigation Research

The Commission's ongoing monitoring and involvement in earthquake hazards assessment and mitigation research continued when the Commission invited various representatives from the research community to provide program updates. During the year, the following participants gave updates before the Commission on seismic research within their programs:

Dr. Lucy Jones (Seismic Safety Commissioner), United State Geologic Survey (USGS).

Dr. Thomas Jordan, Executive Director of Southern California Earthquake Center (SCEC), a geoscience-focused organization sponsored by the National Science Foundation (NSF) and the United States Geological Survey (USGS).

Dr. Paul Somerville, Principal Seismologist, URS Corporation, Earthquake Engineering Research Institute, explained a research agenda to be funded by either NSF or National Earthquake Hazards Reduction Program.

Mr. Charles Real, Supervising Geologist, California Geological Survey, made a presentation on research activities underway, including research into probabilistically-based deformation mapping, instrumenting buildings with accelerometers and seismic hazard mapping.

Mr. Martin Eskijian, Supervisor, Engineering Branch, Marine Facilities Division, State Lands Commission focused on research efforts into the assessment of the performance of coastal structures and recently developed engineering and maintenance standards for marine oil terminals.

The following individuals gave an update on Implementing Research Results within their respective programs:

Mr. Cliff Roblee, Senior Research Engineer California Transportation Commission
Mr. Milo Pearson, Chief Operations Officer, California Earthquake Authority
Mr. Bob Reitherman, Executive Director, CUREE Consortium of Universities for Research in Earthquake Engineering
Dr. Jack Moehle, Director, Pacific Earthquake Engineering Research Center
Ms. Deborah Hopkins, Research Scientist, Lawrence Berkeley National Lab
Mr. Dan Gilbert, General Manager, New Business Ventures

Rancho Seco Nuclear Power Plant Dry Cask Storage Facility

The Commission staff visited the nuclear waste Dry Cask Storage Facility at the Rancho Seco Nuclear Power Plant on October 18th in response to the California Energy Commission request for comments on a proposed Nuclear Regulatory Commission (NRC) rule amendment for Dry Cask Storage Facilities. The proposed rulemaking is to amend current NRC rules regarding seismological and geological characteristics for siting and design of dry cask independent fuel storage installations and monitored retrievable storage installations. Commissioner Patwardhan assisted in preparing comments on the proposed rulemaking. The California Energy Commission coordinated responses from other state agencies and submitted to the NRC.

Commission Web Site Activities for 2002

The following data became available on the Commission's website this year:

- The Northridge Reports (the Commission published a number of reports related to the Northridge earthquake)
- Earthquake Loss Reduction Plan (the State's earthquake mitigation plan)
- Homeowner's Guide to Earthquake Safety and the Commercial Guide to Earthquake Safety
- USGS Shake Maps

The reports may be downloaded from the Commission's website publications page www.seismic.ca.gov.

Nestlé Earthquake Preparedness Exhibit In Glendale

The Commission participated in Nestlé's Earthquake Preparedness Exhibit on April 13-15, 2002. The exhibit provided Nestlé's 1600 employees with information about seismic safety. The Commission spotlighted the newly released *Earthquake Loss Reduction Plan* as well as the *Homeowner's Guide to Earthquake Safety*. Other participants at the exhibit were City of Los Angeles, the U.S. Humane Society, and Quake Ready.

The Commission welcomes invitations to participate in educational events in order to educate and reach out to communities on seismic safety, as long as there is no conflict of interest, and resources and staff are available.

Seismic Safety Inventory of Older California Public Schools

In 1999 the Commission sponsored a new law that required the Division of the State Architect (DSA) to develop a statewide inventory of public school buildings for Grades K through 12 built before 1976, (Chapter 622, Statutes of 1999, 17317 Education Code, AB 300 - Corbett). The purpose of the survey was to screen and identify those buildings with non-wood-frame walls that were built to early Field Act regulations now no longer considered acceptable. School buildings that may be potentially vulnerable to collapse should be slated for seismic evaluations. Those found to pose risks to life should either be retrofitted or replaced.

For the past two years, the Division of the State Architect (DSA) has undertaken a review of their archives of building plans for public schools and, in consultation with Commissioner Daniel Shapiro, developed a list of building types that require detailed seismic evaluations, identified 7,537 buildings that should be evaluated, and prepared cost estimates. DSA's next recommended step in the management of this risk is an \$18.4 million detailed evaluation of 1,229 schools located nearest to active earthquake faults.

Nonstructural Earthquake Hazards in California Schools

In 1999, the Commission sponsored a new law that required the Governor's Office of Emergency Services (OES), in consultation with the Commission, to develop a guidebook to encourage school personnel to reduce falling hazards of building contents and nonstructural parts of buildings in earthquakes. (Chapter 294, Statutes of 1999, Section 8587.7 of the Government Code, SB 1122 – Alarcon). OES released its new "School District's Guide and Checklist for Nonstructural Earthquake Hazards" in December 2002. OES now plans to disseminate copies to school officials statewide and add a site on its web page for school officials to visit and download additional guidance.

Local Outreach for 2002

To better engage local governments in statewide policy development and to provide an opportunity for the Commission to exchange important information with local residents and officials, the Commission was able to visit officials from the Cities of Sonora and Long Beach in 2002. The Long Beach meeting provided the Commission with an informative framework of the Southern California major seaports' seismic environment. In Sonora, the commissioners learned first hand the seismic issues facing the Hetch Hetchy Water Delivery System.

Highlighted Presentations Before the Commission in 2002

- Mr. Dennis Bellet, Chief Structural Engineer, Division of the State Architect (Update on Plan Review and AB 300)
- Mr. Charles Real, Supervising Geologist, USGS (Update on Seismic Hazard Mapping Program)
- Dr. Jack Moehle, Director, Pacific Earthquake Engineering Research (PEER) (PEER Review Report)
- Mr. Ed Matsuda (BART Seismic Upgrade)
- Mr. John Rowden, Hazard Mitigation Section Manager, Office of Emergency Services (Cost Benefit of Earthquake Mitigation Actions)
- Professor James Moore, University of Southern California (Cost Benefit)

Mr. Jerard Fuccilo, Consulting Engineering City of Sonora (Sonora Seismic History Overview)

Mr. Douglas Honegger, Private Consultant, American Society of Civil Engineers (Gas Safety)

Mr. Ed Bortugno, Senior Geologist, Hazard Identification and Analysis Unit, OES Disaster Assistance Division, Governor's Office of Emergency Services (Gas Safety)

Mr. Richard Conrad , Principal Architect, & Pat Campbell, Structural Engineer, Division of the State Architect (Gas Safety)

Mr. Jon Zanzi, Chief, Sebastopol Fire Department (Gas Safety Committee)

Mr. Massoud Abolhoda, City of Fremont Building Official (Gas Safety)

Mr. Stan Weig, Legislative Advocate, California Association of Realtors (Gas Safety)

Mr. Clifford Roblee, Senior Research Engineer, Caltrans (Implementing Research)

Mr. Milo Pearson, Chief Operations Officer, California Earthquake Authority (Implementing Research)

Mr. Jack Moehle, Director, Pacific Earthquake Engineering Research Center (Implementing Research)

Ms. Deborah Hopkins, Staff Scientist, Lawrence Berkeley National Lab

Mr. Dan Gilbert, General Manager, New Business Ventures (Implementing Research)

Dr. Guna Selvaduray, Professor, Materials Engineering Department, University of San Jose (English to Japanese Translation of CELRP)

Dr. Tom Jordan, Director, Southern California Earthquake Center (Research Implementation)

Dr. Paul Somerville, Principal Seismologist, URS Corporation, Earthquake Engineering Research Institute (Research Implementation)

Mr. Paul Jacks, Deputy Director, Governor's Office of Emergency Service (Welcome and Disaster Conference)

Commission Budget Summary

	2000/01	Positions	2001/02	Positions	2002/03	Positions
General Fund	\$821,000	9	\$755,000 <i>(\$917,000 was original amount before budget reduction.)</i>	8 <i>(One lost position due to current year unfilled position cuts)</i>	\$891,000*	8
Prop 122	\$105,000	1.8	0	0	0	0
Reimbursements	\$75,000	-	\$235,000	-	\$175,000	-
Total	\$1,001,000	10.8	\$990,000	8	\$1,156,000	8

*Subject to additional reduction, pending before the Department of Finance.

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Seismic Safety Commission
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January 2003

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