

The Regents of the University of California

**COMMITTEE ON GROUNDS AND BUILDINGS  
COMMITTEE ON HEALTH SERVICES  
COMMITTEE ON FINANCE**

January 14, 1999

The Committees on Grounds and Buildings, Health Services, and Finance met on the above date at UCSF - Laurel Heights, San Francisco.

Members present:     Representing the Committee on Grounds and Buildings: Regents Atkinson, Davies, Espinoza, Johnson, Khachigian, Kozberg, Lee, Montoya, and Willmon  
                              Representing the Committee on Health Services: Regents Atkinson, Davies, Khachigian, Leach, Preuss, and Sayles; Advisory member Vining  
                              Representing the Committee on Finance: Regents Atkinson, Bagley, Davies, Johnson, Khachigian, Leach, Lee, Miura, and Willmon

In attendance: Regent Bustamante, Faculty Representatives Coleman and Dorr, Secretary Trivette, General Counsel Holst, Assistant Treasurer Young representing Treasurer Small, Provost King, Senior Vice President Kennedy, Vice Presidents Broome, Darling, Hershman, and Hopper, Chancellors Berdahl, Bishop, Cicerone, Dynes, Greenwood, Orbach, and Yang, and Recording Secretary Bryan

The meeting convened at 9:35 a.m. with Committee on Finance Chair Johnson presiding.

**UPDATE ON UC CAMPUS AND MEDICAL CENTER SEISMIC SAFETY PROGRAM**

Senior Vice President Kennedy reported that the University's efforts regarding seismic and life safety are ongoing. Since beginning the programs in the late 1970s, 145 UC buildings graded poor or very poor have been corrected or demolished. This work has been financed by a combination of State, federal, private, and bond monies in excess of \$1 billion. The occurrence of three significant earthquakes, Loma Prieta in 1989, Northridge in 1994, and Kobe, Japan in 1995, caused the schedule of the program to be rearranged. Following each of these earthquakes, the University took action to reevaluate and adjust its seismic safety program based on the knowledge gained from these events and the subsequent code changes mandated by State policy makers.

Mr. Kennedy noted that the scope of the need to raise safety levels on the campuses is uncertain, but it is estimated that capital funding needs will be in excess of \$3 billion. It is expected that the programmatic and cost aspects of the improvements will be completed later

this year. It is urgent that all campuses address seismic issues, but the problem is acute at UC Berkeley, as that campus is resting partially on the hazardous Hayward Fault.

Mr. Kennedy reported that, since 1989, the University has reassessed campus and medical center buildings three times, each time using newer criteria. The most recent earthquakes provide a challenge to UC in its role as a health care provider. In 1994 the Legislature enacted Senate Bill 1953, the Alquist Hospital Seismic Safety Act, which will require University compliance.

Ms. Maria Faer, Director of Clinical Policy and Legislation, reviewed the requirements of SB 1953 and the process under way to comply with its requirements. All hospitals in the state, including the University's inpatient, acute care facilities, must comply with a very stringent time line as well as mandated regulations to ensure that the state's infrastructure will be in place should there be a significant seismic event. By 2001, all hospitals must submit a compliance plan to the State and the Office of Statewide Health Planning and Development (OSHPD) for design approval and review. By 2008, all acute care facilities must be life safe or removed from service, and by 2030 they must be deemed fully operational or must close.

Ms. Faer provided a perspective on the strategic and financial aspects of compliance with SB 1953. She reported that each medical center is completing an assessment and strategic plan that will provide the foundation for the development of the compliance plan. SB 1953 was the result of a compromise forged between the Legislature, the hospital industry, the Department of Health Services, OSHPD, and the State Seismic Committee. Estimates indicated that at least 28 percent of the state's hospitals are at risk of collapsing in an earthquake. Cost estimates range between \$15 billion and \$23 billion to either retrofit or upgrade all hospitals. UC is currently trying to obtain a realistic assessment of what the total cost will be to the industry. Given the size of the problem and the limited resources, it is likely that there will be significant competition for funds for retrofitting. Not only are there capital and construction requirements to meet the demands of the time line, but issues have surfaced concerning life safety code upgrading, disability access, and infrastructure systems. Given the dynamic healthcare marketplace, it is difficult to put in place strategic plans that describe the healthcare marketplace of the future. She indicated that a comprehensive implementation and funding plan will be presented to the Regents later in the year to meet the requirements of SB 1953.

Chancellor Berdahl explained why the Berkeley campus faces special concerns about seismic safety. The Hayward fault runs through the eastern edge of the campus. Many buildings were constructed before 1976, when less stringent building codes were in effect. In the last few years, the magnitude of the threat has risen because campus buildings thought previously to be safe in an earthquake have been discovered to be vulnerable. To make them safe will be an enormously expensive undertaking.

Mr. Berdahl reported that there are 97 buildings, including 57 major buildings on the central campus that account for 27 percent of all campus space, that are rated seismically poor or very poor. These include 200 classroom and teaching laboratories. Preliminary estimates indicate

a cost to do the needed work of over \$1 billion. More than 20 major buildings have already been strengthened. Seismic work has been completed for all high-rise student residence complexes, Wheeler Hall, South Hall, and Doe and Moffitt Libraries.

It is estimated that there is a 67 percent chance within 30 years of an earthquake in the Bay Area with a magnitude of the Loma Prieta quake. The estimate specifically for the northern Hayward fault is 28 percent. Mr. Berdahl stated that his first concern was to protect the lives of students, faculty, and staff. Because of the threat of earthquakes, a campus safety program, the Seismic Action Plan for Facilities Enhancement and Renewal (SAFER), was established to provide a comprehensive response. The ten-point plan provides for a coordinated planning, design, and construction effort. Several steps have been completed, including hiring a new Vice Chancellor for Capital Projects, Mr. Edward Denton, to oversee all aspects of the SAFER program construction. Several more steps, including planning for temporary space and developing a multiple-source financing plan, are under way. A first effort was to engage in a partnership with the Federal Emergency Management Agency, which awarded to Berkeley a \$42 million grant that will fund partially the retrofit of four important buildings. Over the past year a great deal of work has been done on emergency preparedness and communications, and steps have been taken for basic safety improvements. In one effort, \$100,000 has been provided for departments to brace furniture, computers, and other equipment. Another program under way is called Home Team. It has recruited 1,000 campus volunteers to be trained in rescue, first aid, and shelter operations.

Vice Chancellor Denton described why deadly earthquakes in Northridge and Kobe intensified concern about seismic strengthening. Mr. Denton reported that those two events were significant because they took place in urban areas. They resulted in new knowledge that has caused building codes to be revised. Kobe and Berkeley are similar geologically and seismically. The damage to buildings in Kobe was most widespread in buildings over 25 years old. It is expected that damage at UC Berkeley would mirror the Kobe experience in terms of loss of life, injuries, and financial impact to the campus and community. In planning the SAFER program, buildings were surveyed by structural firms that developed options for seismic upgrades. Of 29 buildings of historic designation, 14 need seismic upgrades. These buildings need to be upgraded invisibly, which increases the costs. Preliminary cost estimates took into account the costs of similar projects in the Bay Area, of bringing structures up to codes instituted since the Kobe and Northridge earthquakes, of new FEMA methodology to analyze and design structural renovations to buildings, and of new computer modeling technology available. Mr. Denton noted that many considerations affect the sequence of projects on the seismic upgrade calendar for UC Berkeley. These considerations include the need to maintain building access, to house the occupants of buildings elsewhere during seismic work, and to obtain funding.

Mr. Denton observed that life safety includes more than just the structural system. Buildings built in the 1950s and 1960s do not usually have sprinklers, up-to-date fire alarm systems, or areas of refuge. He noted that life safety upgrades are very focused and may not be obvious upon completion.

Mr. Denton reported that he was attempting to put in place policies and procedures that assure high compliance with schedules and budgets. It is imperative to train project managers to deal with the complexities that occur in structural upgrades. They must understand how to manage contracts and contractors and how changes must be addressed. He reported that he has established a monthly education day for staff.

Mr. Denton noted that the eight projects completed thus far came in under budget. There are 21 projects scheduled to be undertaken during the next five years. These include Memorial Stadium, which houses office space that is used year-round. Also, the Berkeley Art Museum, which is used heavily, may need to be closed if sufficient funds cannot be found in time to meet the schedule.

Chancellor Berdahl noted that during the past few years the campus has dedicated the overwhelming majority of its \$20 million-a-year average capital program funds to seismic retrofitting. Berkeley's entire share of Proposition 1A funds, \$67 million, will be dedicated to the SAFER program. Private funds will be sought also.

Regent Leach was gratified that concern for the safety of students, employees, and visitors was a priority. He believed that no one must be exposed to an unreasonable level of risk.

Commenting on SB 1953, Regent Lee noted that the joint venture between UCSF and Stanford University does not obligate the University to pay for upgrading buildings for seismic safety purposes, but he was concerned that such obligations may exist in other medical school joint venture agreements. He recommended that all such affiliation and service agreements be examined to ascertain the University's obligations. President Atkinson agreed that this would be done and the outcome would be reported to the Regents. Director Faer noted that the requirements of SB 1953 govern only acute inpatient facilities. Mr. Denton added that part of the due diligence in entering partnerships is to examine the buildings involved to determine their seismic grading.

Regent Kozberg asked whether the federal government has been responsive to the fact that a large proportion of the buildings on the Berkeley campus were built before there were seismic safety codes in place. Chancellor Berdahl explained that FEMA does not presently have any systematic mitigation program. In 2000, however, it is expected that a national initiative called the Disaster Resistant University Program will be launched to address the problems of universities. The Berkeley campus hopes to receive solid funding from that program.

Faculty Representative Dorr was reassured to learn that the need to maintain the academic life of the Berkeley community during seismic and life safety upgrading was being given particular attention. She hoped that general improvements could be made to some of the campus' buildings at the same time that seismic work is going on.

Regent Sayles asked how students are being prepared to handle emergencies on campuses. Mr. Berdahl explained that the SAFER program's volunteers assign leaders who will take

charge within each building and each unit when emergencies occur. He reported that the Berkeley campus has conducted disaster simulations in which emergency responses were practiced, including those of handling injuries, establishing command centers, and overcoming communications problems. Senior Vice President Kennedy noted that all campus buildings conduct emergency drills. Regent Espinoza stated that as a student he had been reassured during an earthquake by campus staff who were trained to handle emergencies.

Lieutenant Governor Bustamante announced that his office was preparing a report to the Governor about the problems facing the state concerning its infrastructure. The report will address not only the status of the state's roads and bridges but also of its health and education systems. It will address the question of how to upgrade or replace aging facilities. He was hopeful that the report would be used as the basis for developing a master plan that would pay special attention to the needs of the state's educational facilities. He invited the Regents to suggest ways in which the University's infrastructure needs could best be presented to the Governor.

The meeting adjourned at 10:35 a.m.

Attest:

Secretary