

EARTHQUAKE ENGINEERING
RESEARCH INSTITUTE

NEWSLETTER

Managing Editor: Gerald Brady
Production Editor: Corry Arnold
Associate Editor: Richard Meehan
Joe Litehiser
Graphics: Roosevelt Studios
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Earthquake Engineering Research Institute
2620 Telegraph Avenue, Berkeley CA 94704
(415) 848-0972

EARTHQUAKE NOTES

A couple of earthquakes, probably not related to each other, except in a broad context, have occurred in Wyoming recently. First, Thursday October 18, 9:30 a.m., 40 miles southeast of Casper, as reported by NEIS:

18 October 1984, 1530 UTC
42.37°N, 105.83°W
Magnitude 5.5 (body wave mag.)
5 km deep

No major damage and no injuries reported, although felt throughout Wyoming and most adjoining states.

Second, Saturday November 3, 25 miles southwest of Lander:

3 November 1984, 0930 UTC
42.5°N, 109.0°W
Magnitude 5.0 (body wave mag.)
5 km deep

Meanwhile, a major earthquake, M7.3, occurred on the Mid Atlantic Ridge, north of the equator, Thursday, November 1. No reports.

EARTHQUAKE (SAFETY) LEGISLATION

The 1984 session of the California legislature was the most productive in the state's history in terms of the number of measures enacted that relate to earthquake safety. Seven bills, five of which were sponsored by the Seismic Safety Commission, were signed into law by Governor George Deukmejian.

AB 2662, authored by Assemblyman Richard Alatorre and Senator William Campbell, authorized a three-year extension of the Southern California Earthquake Preparedness Project and the inauguration of a similar effort in the nine-county San Francisco Bay Area region. The measure provided \$750,000 in state funding for the two projects during the 1984-85 fiscal year; the Federal Emergency Management Agency, through its Region IX offices in San Francisco, has provided matching federal funds. The SCEPP effort is under the administrative management of the Governor's Office of Emergency Services; the Seismic Safety Commission is in charge of the project in the Bay Area. An incentive program, which will enable local governments to undertake demonstration projects that relate to earthquake safety, will be inaugurated as part of these accelerated efforts to improve local government and private sector preparedness.

Two new laws relate to earthquake education. AB 2786, authored by Assemblyman Richard Katz, requires all public and private schools in California having an enrollment of fifty or more students to develop an earthquake disaster plan and to hold regular drills. Elementary schools must hold one drill per quarter, secondary schools one drill each semester. SB 1893, authored by Senator Nicholas Petris, authorizes the statewide implementation of the earthquake safety curriculum developed by the Lawrence Hall of Science, U.C. Berkeley, under contract to the Seismic Safety Commission. The bill appropriates \$525,000 over a three-year period to promote adoption of the curriculum at the junior high level in California's schools.

AB 3321 relates to procedures and authorities surrounding possible issuance of earthquake or volcanic predictions. The bill, authored by Assemblyman Richard Alatorre, is based upon recommendations made by SCEPP in a report Earthquake Prediction: Legal Authority and Liability. The measure provides specific authority to local governments to develop and implement earthquake prediction response plans, declares that the issuance of an earthquake or volcanic prediction by the Governor is grounds for the declaration of a state of emergency, provides

immunity for scientists who bring possible predictions first to the California Earthquake Prediction Evaluation Council, and allows this council to hold closed sessions when evaluating possible predictions.

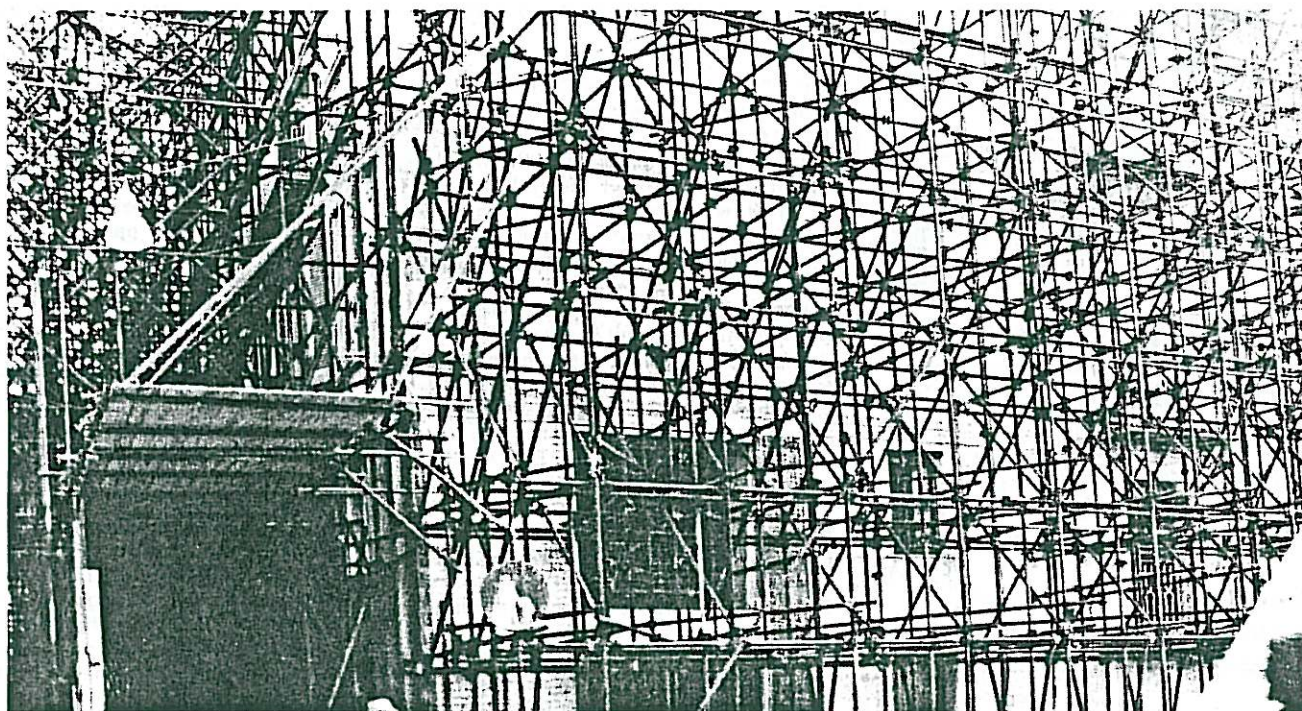
Assembly Bill 2865, by Assemblyman Alister McAlister, deals with the complex subject of earthquake insurance. The new law requires insurance carriers in California to make a one-time offer of earthquake insurance to all residential policy holders and as part of any new residential policies written in California. In addition, the legislation addresses issues relating to "concurrent causation" which have arisen as a result of recent California court cases. Briefly, the courts have declared that if a loss is attributed to two risks, one of which is excluded while the other is not, an all-risk policy must pay the loss. Thus, a homeowners policy would cover earthquake damage if a covered risk could be found, such as negligent construction. The insurance industry has been especially concerned that the practical effect could be that no earthquake exclusion would be effective in an all-risk policy.

SB 1872, authored by Senator Alfred Alquist, removes the January 1, 1986 sunset clause on the Seismic Safety Commission's enabling legislation. The effect of this measure is to continue the Commission's existence indefinitely.

Assembly Concurrent Resolution 74, by Assemblyman Richard Alatorre, calls upon the Governor to budget funds during the state's 1985-86 fiscal year to begin rehabilitation of the first twenty state-owned buildings identified in a 1979 Seismic Safety Commission study as potentially hazardous. This measure expresses the sense of the Legislature and does not have the effect of law.

One measure, SB 1797 by Senator Alquist, was vetoed by the Governor. This bill would have required all California jurisdictions in seismic zone 4 to undertake surveys identifying all unreinforced masonry buildings and develop some plan to address the identified problems. The Governor, in his veto message, argued that sufficient authority and incentive existed already for local governments to undertake such actions, and that the effect of the proposed law would be to transfer to the taxpayers cost of rehabilitation which should be the responsibility of private property holders.

Importantly, all of the previously-mentioned measures passed the Legislature with large, bi-partisan majorities. It seems clear that in California strong political support exists for strengthening the State's already solid record in earthquake safety.



Dr. Leggeri sends a photo of the center of town in Potenza, Italy, four years after the Campania-Lucania earthquake.

ANOTHER POINT OF VIEW

Robert L. Bates who writes The Geologic Column in *Geotimes*, produced the following in the October, 84 issue:

DOWNTHROWN LOVE

Our future stretched before us
Like a lovely fertile plain
Tectonically stable
With no evidence of strain
When suddenly a fracture
Made a scarp 10 meters tall
And I was left on the down-
thrown side
Though it wasn't my fault at all.

There's a vertical separation
And never again we'll meet
For there ain't no readjustment
Of 32-point-8 feet
Our love's offset forever
Its memory cast a pall
You're up there and I'm down
here
On the gol-dang hanging wall.

That such things can be 'normal'
Is sad but true, I guess
Whenever two young lovers
Undergo tensile stress
Our calm cratonic future
Is gone beyond recall
And here I am on the down-
thrown side
Though it wasn't my fault at all.

NEWS OF THE PROFESSION

Civil Engineering magazine reports on the tour through the United States of the China Ancient Traditional Technology Exhibition whose last stop is at Atlanta's High Museum of Art through 25 February 1985. In addition to exhibits on astronomy, shipbuilding, ceramics, civil and mechanical engineering and architecture, (no rockets?) is a replica of the first known seismograph invented in 132 A.D. by one Zhang Heng. That is the urn, with the 8 dragons facing down towards the surrounding toads, each dragon mouth containing a ball that is dropped into the corresponding toad's mouth when knocked free by an internal pendulum.

EERI is a Cooperating Organization for the conference titled Research & Design 85: Architectural Applications of Design and Technology Research, managed by the American Institute of Architects, and held at the Biltmore Hotel in Los Angeles, March 14-18, 1985. One of the four major research-oriented exhibits, corresponding to conference topics, is Life Safety/Codes.

PERSONALS

W. (Bill) J. Hall (EERI 1973) has moved up at Illinois to become Head of the Civil Engineering Department, University of Illinois, Urbana-Champaign.

Ing. Maurizio Leggeri (EERI 1982) of Potenza, in southern Italy, writes of the difficulties connected with the repair of buildings in the center of town, damaged to various degrees by the Campania-Lucania earthquake four years ago (November, 1980). He is personally contacting agencies within the USA to assist in fund-raising. In addition, and in cooperation with the Istituto Geofisico, he is proposing to install a Potenza-based regional seismographic network throughout the territory of Basilicata as an addition to the national network. We wish him well in these two endeavors.

Dr. Robin K. McGuire (EERI 1975) has formed RISK ENGINEERING, INC., for consulting in earthquake engineering and risk/decision analysis. His new address is 5255 Pine Ridge Road, Golden, Colorado, 80401, telephone 303-278-9800. Robin will maintain his association with Dames & Moore in Golden to complete ongoing projects.

PUBLICATIONS

The published proceedings of a conference on Lifeline Earthquake Engineering: Performance, Design and Construction discusses state of the art electric power and telecommunication systems, transportation, water and sewage. Seismic design is accented. Available from ASCE (\$27, non-members, \$20.25 for members).