



# State of Utah

## UTAH SEISMIC SAFETY COMMISSION

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Chairperson

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### UTAH SEISMIC SAFETY COMMISSION

April 29, 1997

State Office Building, Room 1112

#### Minutes

#### Members Present:

Chair, Les Youd

Lee Allison

Walter Arabasz

James Bailey

Lorayne Frank

James Golden

Barry Smith

Suzanne Winters

#### Members Not Present:

Craig L. Dearden

Ken Bullock

William E. Juszcak

Sen. Craig Peterson

Randall G. Updike

Russ Wilder

#### CEM Staff Present:

Bob Carey

Brenda Edwards

John Rokich

#### UGS Staff Present:

Gary Christenson

Janine Jarva

Barry Solomon

#### Others Present

Ann Becker

Ron Dunn

Carl Eriksson

Max Gregerson

Joni Whitear

Lee Siegel

Barry Welliver

Professor, BYU Civil Engineering Department

Director, Utah Geological Survey

Director, University of Utah Seismograph Stations

Structural Engineers Association of Utah

Director, Division of Comprehensive Emergency Management

Assistant Chief Structural Engineer, Department of Transportation

Western Mountain Region American Institute of Architects

Science Advisor, Governor's Office of Planning and Budget

Commissioner, Department of Public Safety

Director, Utah League of Cities and Towns

Division of Facilities Construction and Management

Utah State Senate

U.S. Geological Survey (Ex-Officio)

Federal Emergency Management Agency (Ex-Officio)

EPICENTER Program Manager, Natural Hazards Section

Office Technician, Natural Hazards Section

Natural Hazards Section Chief

Applied Geology Manager, Utah Geological Survey

Senior Geological Technician, Utah Geological Survey

Senior Geologist, Applied Geology, Utah Geological Survey

Chair, Education and Awareness Standing Committee

Chair, Engineering and Architecture Standing Committee

Structural Engineer and Building Official, Salt Lake County

Structural Engineer, CEntry Construction and Engineering

Chair, USSC Conference Committee

Salt Lake Tribune

Structural Engineer



**Call To Order**

Chairman, Les Youd called the meeting to order at 9:00 a.m.

**Approval of Minutes**

The minutes from the October 1, 1996 meeting were not approved at the Jan 23, 1997 meeting due to the lack of a quorum.

<b>Motion:</b>	<b>To adopt the minutes of the previous two meetings</b>
<b>Moved By:</b>	<b>Lee Allison</b>
<b>Seconded:</b>	<b>Lorayne Frank</b>
<b>Motion Carried:</b>	<b>By a Quorum</b>

**News**

Update, National Science Foundation (NSF) Engineering Center Proposal - Proposal background  
The National Science Foundation requested proposals for additional centers to house earthquake engineering research. Presently one center is located in Buffalo, New York, which is funded by the NSF.

Through the request for center proposals, two to three centers may be funded. Matthew Mabey, from BYU, prepared a proposal for Utah and Oregon as a joint effort. The proposals were submitted October 1996. Proposals have been prepared by California, New York, and the University of Illinois. The proposals have been reviewed and are being re-reviewed. There will be no site visits to the proposed centers, but those proposing a center may be requested to make presentations to the review board in Washington. The time frame for the presentations is uncertain at this point.

Building Code Amendments Bill - The bill failed by a small margin 35 to 39 in the House and passed in the Senate by a margin of 23 to 4. Opposition to the bill is believed to be due to the lack of effective enforcement of the state licensing law for building inspectors. Comments from building inspectors and officials are that no further regulations should be made until there is an enforcement of the State Inspector Licensing Law.

The Uniform Building Code Commission (UBCC) is comprised of volunteers including contractors, fire officials, public members, structural engineers, and architects. This Commission recommends code adoptions and rules to establish uniform, statewide codes.

The Engineering and Architecture Committee is drafting rule changes to achieve the desired review process. This proposal would require that plans for all commercial, industrial, or multi-family buildings over two stories in height or 10,000 square feet be reviewed by a licensed plans examiner. The licensed plans examiner would be required to obtain peer review of the plans by a structural engineer.

The changes to the State Inspector Licensing Law are reviewed by their advisory committees and if the input is supported by the UBCC, the changes would be circulated for outside comment and a public hearing possibly in November 1997. The earliest effective date would be January 1998 with the postponement of the license requirement for one year. This proposal would be an alternative to reintroducing a bill in the Legislative session. Jim Bailey indicated that he believed the UBCC would support the proposed rule changes.

If the public hearing is successful, the UBCC will recommend to DOPL that the rule changes be adopted. The rule changes would then be incorporated into the State Inspector Licensing Law, administered and enforced by DOPL. Recommendations presented by the UBCC have historically been accepted by the director.

An example of the issues the rule changes hope to address is that seven or eight jurisdictions in the state of Utah regularly obtain peer review of large commercial structures out of approximately 230 jurisdictions.

A comment was made that the school districts are considered separate jurisdictions and are not subject to local jurisdiction regulations. A goal of building officials is to have the plans for schools reviewed and requiring the districts to obtain permits. A perspective from building officials may be that building inspectors are required to be licensed and buildings are inspected by them, then school districts must comply also.

There may be four to five school districts out of 40 that utilize licensed building inspectors. Compliance of most school districts is uncertain due to no licensed inspectors inspecting the school buildings, however, the school plans are reviewed by the State Structural Engineer.

Smaller jurisdictions may state that they do not have funds for a plans examiner or licensed building inspector. In response to this, the fee assessed when a building permit is issued includes money designated to cover the costs of plan checks and inspections, but those funds are being redirected to other projects.

Clarification of the status of state licensing of plans examiners was requested to which Carl responded that to date, only the building inspectors are required to be licensed. This proposal would only require the plans examiners who are performing the review of the plans of the large commercial, industrial and multi-family structures be licensed by the state.

A process for licensing plans examiner would be established by the inspector licensing board that would establish the criteria for licensing. The recommended criteria in the proposal includes a certification from ICBO as a certified plans examiner in addition to experience in code enforcement.

Carl Eriksson suggested that the director of DOPL be addressed by members of the USSC regarding the philosophy of code enforcement.

A determination was made by the UBC Council that stated a plans examiner could not be identified as an inspector so they could not be included in the current law. The redefining of the term "inspector" to include the duty of inspecting plans for building code compliance is a means to affect a change by rule rather than legislation.

Recommended Actions - If the Commission supports the proposal, which is narrower and addresses commercial structures of a larger nature, the UBCC should be advised of the support of the proposal by the USSC near the time of the public hearing in November. Acceptance of the proposal may be influenced by the way it is presented, if it is supported by the USSC and if it is seen as a quality control for construction.

The change of enforcement in the licensing law would be beneficial at any point, due to the possible improvement in the position of enforcement, which may encourage the building officials to support the proposal.

A comment was made that if earthquake safety is a long-term proposition, the concern for the next generation is very timely as it relates to school district issues and during this time of many large development projects considering the lack of knowledge of building structures that are seismically improved.

A strategy on the proposed building code development and enforcement issues was requested with the opposition to the proposal being identified. It was suggested that a "dove-tailing" of strategies between the Engineering and Architecture Committee and the Commission may make a difference.

A unified plan to address these issues seems to be a better approach. Guidance in the approach to the director of DOPL was requested. A proposal with action items will be presented to the Commission at the next meeting, July 2, 1997.

Discussion ensued on bridge structures, the building of them and their strength. Some bridges that were dismantled were stronger than the replacing structure. The local jurisdictions using their funds are not required to follow the review procedures. If governmental funds are used the plans go through the UDOT office. Highway bridges are not covered in the Uniform Building Standards Act which does not include fatigue and other load situations.

The review being conducted by the ISO in regards to insurance rates was presented for discussion. Carl responded that all cities will benefit from requiring that plans examiners be licensed and peer review of plans be executed. The ISO review is in progress and a review has been completed in Murray City, West Jordan, and South Jordan. Salt Lake County has not been contacted for an evaluation, at this point.

All jurisdictions will be evaluated and a substantial credit may be given to a jurisdiction that has peer reviews by licensed professionals. The credit will most likely show up on new construction and exclude existing structures. Carl stated that the overall evaluation may be an eight for the state of Utah, (one being the best rating on the scale of one to ten).

#### USSC Staff Changes

Gary reported that Barry Solomon will be taking his place as principal staff support for the Commission. Bob Carey will remain as the CEM representative for the Commission. Gary will continue his participation on the Earth Science, Conference and be an alternate on the Education and Awareness Committees. Les expressed appreciation to Gary for the work that he has done for the Commission.

#### WSSPC Awards of Excellence

The Western States Seismic Policy Commission (WSSPC) is accepting applications for nominations. Categories of nominations include: Mitigation, Response, Plans, Materials, Use of new technology, Innovation with private sector partnership, Research projects, Educational outreach programs for business, government, schools and general public. The deadline for receipt of applications for review in the WSSPC office is Aug. 15, 1997. Sponsors may be sought for monetary recognition. Awards are not limited to governmental agencies. The desire of WSSPC is to be broad-based in the applications that are received for awards consideration.

It was suggested that the top nominations received for the USSC awards presentation during the USSC Annual Conference be forwarded for consideration as a WSSPC awards nomination.

Les stated that he is impressed with the extra work and going beyond the minimum standards that are being considered by the UDOT in the seismic design of the replacement structures on I-15. He suggested they be nominated for an award.

The nomination applications for the USSC awards will be sent in early May. The decision for the USSC awards will be made in July. The committee that reviews the nominations for the USSC conference will review and forward the favorable applications to the USSC Commission to endorse and forward to WSSPC. Further discussion on the awards and forwarding nominations to WSSPC will be continued at the next USSC meeting.

The desire for the relationship of the Seismic Safety Commissions to become more active in participating with WSSPC was discussed at their board meeting. To encourage this, these committees have been formed, with commission chairs as members: Basin and Range (funding has been obtained for this committee), and Tsunami. More information will be forthcoming and it is hoped that the states will see the value of their participation.

### **Election of New Chair for the USSC**

Les expressed that a change in leadership would bring new life to the Commission. Lee Allison and Jim Golden expressed appreciation for the direction, contribution and the positive representation that Les has given to the Commission and other agencies. Nominations were opened for the election of a Chair for the 1997-98 time frame. Walter Arabasz was nominated. The floor was opened for further nominations and comment.

<b>Nomination:</b>	<b>Walter Arabasz as Chairman of the USSC from July 1997-98</b>
<b>Made By:</b>	<b>Lee Allison</b>
<b>Seconded By:</b>	<b>Jim Golden</b>
<b>Nomination Carried:</b>	<b>By A Quorum</b>

### **1997 Action Plan**

Conference Update - Joni Whitear, Chair of the USSC Conference Committee, reported on the plans for the upcoming conference. The USSC Annual Conference date will be September 9, 1997 and will continue from the scenario that was used in the 1996 Conference. The conference will be held in the Capitol Building with the opening address in the Rotunda. The target audience is business

The agenda is drafted and the conference will begin at 8:30 a.m. with an opening address tentatively set to be given by Insurance Commissioner Charles Quackenbush from California. He will give his perspective on the California earthquakes and comparisons to the Wasatch Front in respect to what they have experienced and what Utah may experience. Breakout sessions will begin at 9:30 a.m. and there are six scheduled at this point. The participants will be able to attend sessions such as: 1) legal - business liability issues as employers, 2) legal/insurance - what to expect, what may happen, legal ramifications, 3) lifeguard - city officials employers taking more responsibility for their employees i.e. a "lifeguard" for each floor that is responsible for the safety of the employees on that level, 4) scientific - a lay-person terms discussion on liquefaction, maps of the Wasatch Front, 5) CERT - Sandy Fire Department and 6) business overview -this session is being developed.

Preliminarily the awards will be announced at the opening ceremonies of the "It's Our Fault Week" and then the awards will be given during the lunch break and comments from the recipient. A call to action will be held at the end of the conference.

The theme has not been selected, but the artwork used for the 1996 conference was effective and will be used for the 1997 conference.

The preliminary flier is in the process of being mailed to announce the date and what to expect during the conference. Included in the flier is a nominations form for the awards.

An article will be written in the *Fault Line Forum* highlighting the USSC Conference.

### **Committee Reports**

**Engineering and Architecture** - Les informed the Commission of Ron Dunn being appointed as the chair of the Engineering and Architecture Committee. He expressed appreciation for the work accomplished in the committee by Earl Eppich.

Jim Bailey introduced Ron Dunn. He has lived in California, and now owns a consulting firm in the valley. He is the owner of an unreinforced masonry building and is working with State Farm Insurance on incentives for owners of these types of buildings to upgrade their structures.

The direction of the Committee is to:

- 1) Formulate the verbiage at their next meeting to assist in the Commissions presentation of the proposal by Carl to the UBC Commission,
- 2) Impose a surcharge fee for use in education as well as for design professionals and construction industry
- 3) Bridge the gap between consulting engineers and owners in the mitigation of the unreinforced masonry buildings.
- 4) Provide incentives for seismic improvement of homes
- 5) Promote good engineering vs. a good insurance company that may not be there after an event.
- 6) Put a vehicle in motion to improve the skill, knowledge of all engineers to bring "the cream to the top". There is an incredible building frenzy and bad engineers are busy and we need to bring everybody up.

The 1997 Uniform Building Code (UBC) availability was questioned and it was reported that it will be official Jan. 1998. The UBCC has put the code on public hearing. A review will follow for any amendments that are necessary to make it consistent with previous adoptions. The acceptance of the UBC by the UBC Commission is typically automatic. Every three years the UBC is revised. The many changes in the seismic factors are more realistic in this issue and courses will be held for practicing structural engineers to update them on the revisions.

**Intergovernmental Relations** - Suzanne Winters reported that a committee has not been formed due to job duties. The issues are important but the job demands are preventing meaningful commitment to the Commission. A replacement to fill her position is desired.

**Awareness and Education** - Ann Becker reported that the Awareness and Education Committee has been holding monthly meetings as well as the Conference Committee due to some overlap in projects.

The Committee has looked at one, two and five year goals using the Strategic Plan as a guide. A suggestion that a "Friends of the USSC", comprised of individuals and corporations that are interested and dedicated to seismic safety in Utah, be organized by the Committee. The Committee is comprised of lay persons and the "Friends of the USSC" is viewed by the Committee as an extension of it. The "Friends" group is also seen by the Committee as a group that: 1) may be able to influence legislators and be a voice for lay persons, 2) resource base, and a 3) funding mechanism.

A suggestion was made that those "Friends" be recognized and lobbied for their support and efforts to improve the seismic awareness. In the State Farm Insurance company, lobbyists who are interested in seismic issues have been identified and is an example of the benefits of an organization like "Friends of the USSC". No steps have been taken to form the "Friends of the USSC" due to the nature of the proposal.

The suggestion was given that funding received be utilized in that area from which the funds were received. An example of this is the funds received from the PTA, that the expenditure of those funds be geared towards the PTA vs. printing of a publication.

A multi-hazard approach was suggested to be discussed and a meeting scheduled to look at a larger strategy. The private sector may be looking at a multi-hazard preparation and it was suggested that the resources, influence, power and funds, be tapped into and go for a large scale structure, such as Cascadia Region Earthquake Workgroup (C.R.E.W.).

A sense of divergence in the directions of the Standing Committees was expressed and a coming together at this time to make a move forward with the suggestions presented in a unified effort, recognizing the overlap of some of the Committees, to develop information or products for the Utah community. A meeting with the Standing Committee Chairs will be set to discuss the direction of the Committees.

The issue of persuading business or industry managers, who have responsibility for emergency planning, to prepare for an earthquake is challenging due to their rare occurrences in Utah. A multi-purpose plan may be more appealing to an industry/private manager than planning for a single event.

**Lifelines** - Jim Golden reported that the names for the Committee needed approval. The names were approved. Jim stated an issue that can be addressed is the attachment of utilities to the bridge structures and the consequences of an event that may disrupt service.

**Emergency Management** - Bob Carey represented Pat Lewis and stated that the discussion regarding the direction of the Committees is timely and also the comments on a multi-hazard approach. Bob expressed that a more effective approach is the multi-hazard approach and may create more interest and activity from the Committee members. Bob reported that there has been membership changes in the Committee due to job reassignment.

**Geoscience** - Walter reported that the members of the Committee are on advisory boards for UDOT and the I-15 reconstruction and Salt Lake Metropolitan Water District. He expressed seeing an opportunity for the geoscientists and engineers to talk together and explore actions that can make a difference in Utah.

#### Bill to Revise USSC Membership and Budget Options for Funding

The membership is limited and may need to have more individuals involved or more rotation of them. If the Commission were to be revised, it would take an act of Legislation. Lee commented that there are members, designated by law, that have not been actively involved with the

Commission. It was suggested that an individual not be named, but have a mechanism in place to allow a representative from that community that has an interest in the goals of the Commission.

A concern expressed at the last meeting is that the charter would be reviewed by the Legislature and the possibility of the Commission being discontinued. The comment of having a "Friends of the USSC" may produce lobby power to ensure the continuance of the Commission.

**Motion:** Lee Allison to prepare, for the next meeting, ideas on proposed legislation and how he might get a sponsor.  
**Moved By:** Suzanne Winters  
**Seconded By:** Jim Golden

Discussion on the motion by Walter Arabasz suggesting that staff inquire of Legislative Legal Council regarding the voting issue and allowing proxy the power to vote under statutory six. Then the Legislative representatives could send a proxy representative and other Commission members.

**Motion Amended:** Lorayne Frank and Suzanne Winters to assist Lee in writing the legislation.  
**Motion Carried:** By a Quorum

**Next Meeting**

The next meeting is scheduled for Wednesday, July 2, 1997, at 9:00 a.m., in the State Office Building, Room 2112.