

**Utah Seismic Safety Commission  
Quarterly Meeting Minutes**

On April 18, 2016, a regularly scheduled quarterly meeting of the Utah Seismic Safety Commission (USSC) was held in the Kletting Room of the Utah State Senate Building. Chair Leon Berrett called the meeting to order at 9:00 a.m.

**Members Present:**

M. Leon Berrett, Chair	American Public Works Association
Keith Koper	University of Utah Seismograph Stations
Roger Evans	Utah League of Cities and Towns
Peter McDonough	American Society of Civil Engineers
Patrick Tomassino	Utah Division of Facilities Construction and Management
Kris Hamlet	Utah Division of Emergency Management
Meldee Love	Utah Department of Insurance
Gerald McKenzie	Structural Engineers Association of Utah
Carmen Swanwick	Utah Department of Transportation
Evan Curtis	Governor's Office of Management and Budget
Rick Allis	Utah Geological Survey
Steven Bruemmer	American Institute of Architects, Utah Disaster Assistance

**USSC Staff Present:**

Steve Bowman	Utah Geological Survey
Bob Carey	Utah Division of Emergency Management
John Crofts	Utah Division of Emergency Management

**Guests Present:**

Walter Arabasz	University of Utah Seismograph Stations
Barry Welliver	BHW Engineers
Glen Palmer	Palmer Engineering
Jennifer Youngfield	Utah State Office of Education
Kris Pankow	University of Utah Seismograph Stations
Sheryl Peterson	University of Utah Seismograph Stations
Jim Higbee	Utah Department of Transportation
Gregg Beukelman	Utah Geological Survey
Cheryl Hersh Simmons	Utah Department of Transportation
Wade Matthews	Utah Division of Emergency Management
James Ray	Utah Division of Emergency Management
Cory Lyman	Salt Lake City Emergency Management
Dr. Ivan Wong	AECOM
Chris DuRoss	U.S. Geological Survey (Ex-Officio)
Adam Hiscock	Utah Geological Survey
Jen LaVista	Utah Geological Survey
Various Media Represented	

**Members Not Present:**

Senator Jerry Stevenson  
Rep. Gage Froerer  
Sean McGowan

Utah State Senate  
Utah House of Representatives  
FEMA Region VIII (Ex-Officio)

**Welcome**

Introductions were made of members and guests present. **Kris Hamlet** made a motion for the approval of the January 28th Meeting Minutes and **Pete McDonough** seconded the motion with stated corrections. The minutes were approved.

**Utah Earthquake Engineering Research Institute (EERI)/USSC Utah Earthquake Resilience Workshop – April 27th**

**Leon Berrett** spoke about the upcoming EERI/USSC Workshop on April 27<sup>th</sup> at the Veridian Center in West Jordan. The workshop will focus on recovery following an earthquake. The workshop is featuring the EERI earthquake scenario, earthquake presentations, and will have distinguished speakers Kris Poland and Kent Yu. Distinguished panels of experts will discuss:

1. Earthquake Public Perception vs. Reality
2. The Critical Three – Schools, Housing, and Jobs
3. Utah's Economic Resilience
4. State Healthcare Resiliency Efforts
5. Utilities Infrastructure
6. The Role of Government

**Leon** encouraged USSC members to register, invite others, and to help promote the Workshop. Evan Curtis will extend invitations to Utah elected officials, Steven Bruemmer will send invitations to American Institute of Architects members, and Utah Division of Emergency Management (UDEM) will advertise the Workshop.

**Earthquake Resiliency Discussion (Solar Panels and Resiliency)**

**Leon** discussed Earthquake Power Resiliency and distributed a copy of the Energy Resiliency document.

**Evan** discussed Sara Wright's efforts to promote energy resiliency and about Utah Clean Energy. Sara will be a panelist at the Workshop and will be available to answer additional questions.

**Bob Carey** said UDEM and the Federal Emergency Management Agency (FEMA) like to review energy resiliency, and recommended we revisit this in future discussions.

**Leon** encouraged everyone to read the document, and share it with others.

## USSC Progress Report

**Bob** discussed the progress report and handed out the 2007 USSC Progress Report. The reason the 2007 document is being handed out is to assist Commissioners in updating the report. Bob mentioned that the 2007 USSC Progress Report was the last Progress Report completed by the Commission and that we could complete an updated Progress Report this year. Bob invited the Commissioners to provide pictures that we could include in the document. Narratives should be completed and turned in to John Crofts by July 2016. Bob said the USSC 2016 Progress Report should be completed by Christmas this year. **Leon** hoped to have the draft completed July.

Ideas for the narratives include:

1. What the Commission has accomplished.
2. What your specific agency/company has completed.
3. Anything that you would hope the Commission can accomplish in the future.
4. Any other item that you hope the Commission may address.

**Bob** stressed that if you do not write a narrative for the Progress Report, then your agencies will not be recognized.

**Keith Koper** referred to page 25 in the 2007 report and emphasized Recommended Actions. Keith recommended giving the 2016 Progress Report to the Legislature before they meet in January.

**Walter Arabasz** emphasized that this Progress Report could highlight:

1. Utah has a significant earthquake problem
2. Reinforcing to the Legislature and explain why the USSC is important in dealing with the Earthquake problem
3. Advocacy document

**Bob** said the planning strategy is the heart of the Progress Report and that we could:

1. Use the Scenario document as a guiding force in the Progress Report
2. Focus in on what the USSC Commission wants to accomplish
3. Help the Commission define where we are going, and what participation we need to accomplish our goals.

**Leon** said, as a Commission, we will work with staff to organize the Progress Report. Leon recommended, after the drafts are submitted, that the Commission organize a small committee to finish the Progress Report. Bob said small committees work well and perhaps four members who may include: Leon, Keith, Bob and John. Leon invited anyone else interested to contact him.

## Update on Legislature

**Evan** reported that 497 bills were passed. Cursory overview of bills that were passed. The most important bill for the Commission was HB 316 which included building codes (this bill was 3000 lines long). Evan said the most controversial bills were regarding air quality issues.

Evan said now building codes are on a six-year cycle for residential buildings. There is an option to review building codes for commercial buildings every three years.

HB 12 – Local Government Emergency Loan fund is where the State loans local government funds after a disaster which would be repaid (to the State) by the local jurisdiction, with interest, on a sliding scale. This law now encourages local governments to begin saving funds that prepare for disasters.

**Kris** said when communities designate funds towards their disaster accounts, HB 12 then gives State agencies the ability to pull money back from the Disaster Emergency Fund. Kris explained that the Disaster Recovery Fund is used to help local jurisdictions recover from disasters. Kris said that the Disaster Recovery Fund, which Representative Oda wanted, further helps locals to have added incentives towards building their own disaster recovery funds. Bob pointed out that Hildale experienced funding shortfalls. Kris said the Disaster Recovery Fund used to have \$32 million. The Legislature reduced the fund to \$3 million and now the fund is rebuilding.

HB 14 would allow the Utah Department of Transportation (UDOT) to make short-term loans. Short-term loans would help Emergency Management Assistant Compact (EMAC) between States. HB14 will keep a reserve fund of \$10 million. Kris is working on a Memorandum of Understanding (MOU) so we can use this account with other State agencies.

HB 212 increases the wildfire suppression fund to \$12 million.

HB 223 better defines what is required to become a historical district. This could potentially affect URM's and change historical structures definitions.

### **Opportunities to Build on the Utah Earthquake Scenario Report**

**Bob** mentioned an opportunity to work primarily with private infrastructure. Bob said UDEM has a section that works with business. This allows our Emergency Operations Center to tap into private sector resources. UDEM's UP3 Section has created a council to deal with infrastructure issues.

Lifeline Infrastructures Resilience Council (LIRC)

1. Communications
2. Energy
3. Water
4. Wastewater

**Pete** discussed that Rocky Mountain Power, UDOT, water and wastewater special service districts, and Homeland Security are looking at resiliency and gap analysis. The Council is examining how each of their systems work together and are interdependent. The Council is prioritizing their systems, working with local planners, responders, and emergency managers to recover from disasters.

**Bob** discussed hospitals and their dependency on water. He discussed hospitals need for water and that without water a hospital could not operate. He discussed the earthquake in Christchurch, and mentioned that even now water and sewer services have not been restored in many areas.

**Break 10:00 a.m.**

### **Other Business**

**Bob** discussed the new URM Residential Building Guide and that it was joint USSC/SEAU committee effort. The document is in final review and being formatted by the Utah Geological Survey. The document will soon be printed. Along with the Fix the Bricks program, building officials will greatly benefit from this new URM guide.

**Bob** said the FEMA supplemental grant program will likely be restored for Fiscal Year 2017. **Kris** said the funding changes were a combined effort from the National Emergency Management Association and the States.

**Kris** reported that Fix the Bricks is releasing a May 4<sup>th</sup> press release to announcing the Fix the Bricks program. Salt Lake City Council funded \$50,000 towards the program and UDEM is very supportive of Fix the Bricks.

**John Crofts** discussed the Rural Earthquake Handbook which is expected to be completed this summer.

**Barry Welliver** gave an EERI conference update and discussed California's push to provide subsidies for solar panels, solar tax breaks, and greater solar participation rates. Currently, California is discussing enforcing solar energy resiliency.

**Bob** and **Barry** discussed legal liability California property owners now hold because of seismic non-compliance. An attorney is representing a family member in California that was killed because a property owner refused to comply with California seismic requirements. California property owners are now financially liable for failing to meet California seismic standards.

**Bob** discussed the Rapid Visual Screening for ATC-20, the Commission approved the tiered levels of credentialing Tier 1 and Tier 2. ATC-20 classes will be held on June 16<sup>th</sup> at Utah Valley University and August 2<sup>nd</sup> at the University of Utah.

**Keith** discussed the University of Utah Seismograph Stations (UUSS) 50<sup>th</sup> Anniversary in honor of Ken Cook who was the founding director of UUSS and invited feedback for the next series of events. Walter will receive the Frank Press Public Service Award for his extraordinary public service in modernizing, expanding and promoting seismic monitoring for public safety in the United States. Keith addressed the improved interactive webpage which has improved content and seismicity in Utah and Yellowstone. Keith noted that the U.S. Geological Survey (USGS) has made changes to their website which now contains new tools and additional information that is helpful in classroom settings.

At this point of the meeting, **Leon** recognized that the media were entering the meeting, and he welcomed them.

**Keith** discussed a M5.5 earthquake in a rural area along with earthquakes occurring in larger populated areas and major cities. The effects are largely different based on population size.

### **Utah Earthquake Probabilities Report**

**Leon** recognized and welcomed the media and turned the time over to **Mike Hylland** who introduced **Dr. Ivan Wong**. Mike thanked the USSC and expressed appreciation for USSC's commitment to accurate and wise seismic decisions. Mike discussed the recent earthquake in Japan that left 40 dead and 2,500 injured and discussed the Christchurch, New Zealand earthquake recovery that continues today. Recovery costs in New Zealand are estimated to exceed \$40 billion. He recognized that a quake along the Wasatch Front could be similar to the effects suffered in New Zealand. Following Ivan's presentation, there was a question and answer period.

**Mike** advised that there would be a press release and supporting materials after the meeting. Ivan discussed the [Working Group on Utah Earthquake Probabilities \(WGUEP\) Earthquake Probabilities for the Wasatch Front Region in Utah, Idaho, and Wyoming](#) report and the sobering effects an M7.0 earthquake could have on Utah and our citizens. After the meeting several subject matter experts will be available to the media.

**Dr. Ivan Wong** is from Walnut Creek, California, and is an internationally recognized seismic expert who has a close relationship with Utah. Ivan graduated from the University of Utah, and has played a key role in Utah seismic investigations. Ivan stated that we cannot predict when or where earthquakes will happen; however, earthquake forecasting allows us to predict earthquake size within a particular region and within a particular timeframe. The WGUEP report will soon be formally published. Ivan discussed the report results, and shared the executive summary.

**Ivan** started by stating the sobering statistics on the Earthquake Engineering Research Institute–Utah Chapter [Scenario for a Magnitude 7.0 Earthquake on the Wasatch Fault-Salt Lake City Segment](#) document. The majority of Utahns recognizes the threat, but has low experience in dealing with earthquakes as opposed to Californians. The attitude that “it won't happen in my lifetime so I won't worry about it” can no longer be stated. With this report, we can now say that if an individual lives in Utah for 50 years, he/she should experience a damaging earthquake.

**Ivan** reported that the WGUEP who generated the report was formed in 2009 through a variety of grants. The focus of this WGUEP report is not just on the Wasatch fault, but includes many other Utah faults that do not get the attention the Wasatch fault typically receives. Combining the risks of various faults, increases the chances of a significant earthquake event along the Wasatch fault.

**Ivan** stated that by 2030, the Wasatch Front population is expected to double. Utah is the youngest state in the nation in terms of population. The ultimate goal of the WGUEP report is to revitalize, sustain families, community, and government efforts to prepare for consequences of

future earthquakes. A large earthquake could have long-lasting effects on the population, infrastructure, and economic stability.

The WGUEP report is a consensus evaluation of the available data and information. The range of the models and interpretation of data were considered in the forecast. There are significant uncertainties in estimates because of uncertainties in categorizing the nature and frequency of earthquakes to the faults in the region. We believe our best estimates are robust.

There is a 43% probability in the next 50 years the Wasatch Front region will experience at least one M6.75 earthquake, and in the next 100 years there is a 67% chance.

People do not believe they will see the “Big One” in their lifetime. This report now tells us we need to change these attitudes.

**Ivan** discussed the vulnerability of Utah schools in light of this new report.

**Chris DuRoss** expressed his strong support of the EERI Scenario document and believes the scenario will further advance the goals of the USGS and encourage Science Applications for Risk Reduction (SAFRR) program goals and objectives. Chris spoke of SAFRR encouraging USSC members to provide him feedback.

**Leon** reminded everyone that the next USSC meeting is an election meeting and to please be aware that USSC members will be electing the Chair and co-Chairs for the next year.

The tentative date for the next meeting is July 14, 2016 from 9:00a-12:00.

**Leon Berrett adjourned the meeting at 11:55 PM.**