



SEAU NEWS

The Newsletter of the Structural Engineers Association of Utah

Volume X- Issue VI March 2006

This newsletter is a monthly publication of the Structural Engineers Association of Utah.

Articles or advertisements appearing herein may be submitted by anyone interested in expressing a viewpoint on structural engineering.

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*The Wells Fargo Financial Center – Provo, Utah
see page 2.*

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MARCH EVENT

SEAU MEETING

*Design of Steel Structures
for
Blast-Related Progressive
Collapse Resistance*

March 16, 2006 5:30PM
EMCB 103

Presented by

**Ron Hamburger, PE TR
Higgins**

MESSAGE FROM THE BOARD

Titles



By Barry Arnold,
Past President

The SEAU Board has

received a number of queries concerning the use of the titles EIT, Engineer and Structural Engineer. Below, for your perusal, are the DIVISION OF OCCUPATIONAL AND PROFESSIONAL LICENSING ACT (DOPLA) and the PROFESSIONAL ENGINEERS AND

PROFESSIONAL LAND SURVEYORS LICENSING ACT (PEPLSLA).

**DOPLA Title 58,
Chapter 1, Utah
Code Annotated 953
As Amended by
Session Laws
of Utah 2004,
Issued: July 1, 2004**

**Part 5 -
Unlawful/Unprofessional
Conduct**

**58-1-501. Unlawful and
unprofessional conduct.**

(1)"Unlawful conduct" means conduct, by any person, that is defined as unlawful under this title and includes:

- (a)practicing or engaging in, representing oneself to be practicing or engaging in, or attempting to practice or

CONTINUED ON PAGE 3

Opinions expressed in the SEAU Newsletter are not necessarily those of the Structural Engineers Association of Utah. Technical information contained herein shall not be used without independent verification by an engineer. Advertising rates and information sent upon request. Acceptance of advertising and informational brochures in the SEAU Newsletter does not constitute endorsement or approval by SEAU of the products or services advertised. SEAU reserves the right to refuse any advertising or editorial comment.

MEMBER FORUM

FOCUS

Salt Lake City and the greater Wasatch Front are growing into a major metropolitan region with many interesting buildings that define our historical, business and cultural qualities. SEAU NEWS will highlight some most interesting and important buildings over the next several months. (If you have a particular interest in a building you would like to see highlighted in this space, please contact the Newsletter Committee). This month the focus is on:



Mixed-use Boost to Downtown Provo The Wells Fargo Financial Center

Article by: Tait Ketcham & Russell Merrill
Edited by: Cameron Empey

The Wells Fargo Financial Center, located in Provo, is an 115,000 square foot, 7-story mixed-use structure. It features four levels of commercial space, three levels of high-end condominiums and is flanked by a 500-stall parking garage. The commercial tenants include Wells Fargo, which occupies both office and banking space, law offices, a restaurant and a dance club. In addition to 20 condominiums, which take up floors five and six, there are four penthouse suites located on the top floor that add a bit of luxurious living to the downtown setting. The tower and parking structure are connected by a suspended bridge. The tower features a fairly simple floor plan utilizing perimeter moment frames with steel composite floor construction for the seven floors. Lightweight concrete was used to achieve the appropriate fire rating and minimize building mass, including steel tonnage. Vibratory loads were considered in the floor

design as well as support for the 120,000-pound bank vault on the suspended floor.

The moment frame connections are constructed using the reduced beam section or “dog-bone” connection. The design also utilized W24 columns based on the findings of the report published by AISC Steel Tips published in June 2002 entitled “Use of Deep Columns in Special Steel Moment Frames”. This design methodology was also supported by a report sponsored by AISC and written by Lehigh University published in June 2004, entitled “Development of Seismic Guidelines for Deep-Column Steel Moment Connections”. By using deep columns, the weight of the column sections was cut by almost one-half, compared to that if W14 columns were used.



The parking structure layout is a classic 2-bay ramp system. (A bay is referring to a double loaded drive aisle.) Each bay ramps up half a level, a lot like a flight of stairs in a stair well. The structural system however, is a design that is the first of its kind in Utah. Previously, this system has been used in Australia and Texas.

The scheme is a lot like a typical 2-way flat plate system. The difference comes in the use of slab bands in the longitudinal direction. The slab bands can be thought of as continuous 8 feet-wide drop panels that add 7 inches of thickness to the typical 7 1/2” slab thickness. The slab bands are made 8 feet wide to accommodate the formwork module. Each of the two bays are supported by two column lines with each column line having a slab band. The columns are centered 3 feet in from the ends of parking stripes (3 feet into the stalls from the drive aisle). The slab cantilevers laterally from the slab bands to the exterior and to the center of the structure at the “ramp split.”

The economy and the “user-friendliness” of this system come in the reduction of the number of columns. A regular 2-way flat plate requires 7 column lines in the longitudinal direction in this type of parking layout,

FOCUS (cont.)

while this system uses only 4 column lines. Since the slab bands are 14 ½" thick they can span 4 parking stalls. A typical 2-way flat plate system, 8 ½" thick, only spans 3 parking stalls. This means only half the drivers have to park near a column. In typical 2-way, two thirds of the drivers have to park by a column.

Having fewer columns in both directions also helps the structure have a much more open feel. Even though the system has fewer columns, the quantity of concrete, post tensioning, and rebar in the *deck* has been found to be virtually equal to a 2-way flat plate. The cost of the formwork is only slightly higher than a 2-way flat plate, and is actually lower than a 2-way flat plate with drop capitols or drop panels. The slab bands handle punching shear adequately without using studrails, providing additional savings.

This project provides the downtown Provo area a landmark complex that serves both day and night uses.

**MESSAGE FROM THE BOARD (continued from page 1)**

engage in any occupation or profession requiring licensure under this title if the person is:

**PEPLSLA Title 58, Chapter 22, Utah Code
Annotated 1953
As Amended by Session Laws of Utah 2003, Issued
May 5, 2003**

58-22-102. Definitions.

- (8) "Professional engineer" means a person licensed under this chapter as a professional engineer.
- (10) "Professional engineering intern" means a person who has completed the education requirements to become a professional engineer, has passed the fundamentals of engineering examination, and is engaged in obtaining the four years of qualifying experience for licensure under the direct supervision of a licensed professional engineer.
- (13) "Professional structural engineer" means a person licensed under this chapter as a professional structural engineer.
- (14) "Professional structural engineering or the practice of structural engineering" means the design and analysis of complex buildings and structures and includes the definition of professional engineering or the practice of engineering provided in Subsection (9), and may be further defined by rule by the division in collaboration with the board.
- (15) "Structure" means that which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner, and as otherwise governed by the codes adopted under Title 58, Chapter 56, Uniform Building Standards Act.

Part 3 - Licensure

**58-22-301. License required -
License classifications.**

- (1) A license is required to engage in the practice of professional engineering, professional structural engineering, or professional land surveying, except as specifically provided in Section 58-1-307 or 58-22-305.
- (2) The division shall issue licenses to individuals qualified under the provisions of this chapter in the following classifications:
 - (a) professional engineer;
 - (b) professional structural engineer; and...

Part 5 - Unlawful and Unprofessional Conduct - Penalties**58-22-501. Unlawful conduct.**

"Unlawful conduct" includes:

- (1) using the title "professional engineer," "professional land surveyor," "land surveyor," "professional structural engineer," "structural engineer," or any other words, letters, abbreviations, or designations which represent recognized professional engineering disciplines indicating that the person using them is a professional engineer, professional land surveyor, or professional structural engineer if the person has not been licensed under this chapter, except as provided in Subsection 58-22-305(1); or
- (2) engaging in or representing itself as engaging in the practice of professional engineering, professional structural engineering, or professional

MESSAGE FROM THE BOARD (continued)

land surveying as a corporation, proprietorship, partnership, or limited liability company unless exempted from licensure under Section 58-1-307 or 58-22-305. A complete set of all the rules governing the practice of engineering and the laws concerning licensing in the state of Utah are available on the DOPL web site (www.dopl.utah.gov/licensing.html).

It behooves every engineer to be familiar with all of the Licensing Statutes and Rules as well as the Proposed Changes. The information contained on the web site is the law concerning our profession and we can be prosecuted under it.

I haven't provided this information to "stir the pot". There were no italics added. There was no finger pointing. It's being provided to you for your personal information and benefit, and the strengthening of the profession.

It was recently pointed out to me that if structural engineers don't respect the title of Structural Engineer we can't expect anyone else to, and it will slowly become meaningless.

It has been a pleasure and an honor to have been in your service these past five years.

Have a great career!

PRESIDENTS MESSAGE – RESEARCH by JULIE OTT

SEAU is about progress. A necessary component for progress is the constant development of new talent, new ideas and new methods.

SEAU is about sharing. Each member of our organization has benefited thru participation. We have taken and now we should give.

SEAU is about growth. Our worth is the sum of the parts. Our financial strength should be invested.

SEAU satisfies a professional need. Knowledge which is obtained thought others can be readily available.

It is proposed by the Board of Directors of SEAU to partially or totally fund specific research project for the benefit of the organization. These projects would be carried out at the university level and under direct supervision. Projects will require approval of the general membership. The allocated amount will be depended upon each specific project. Accountability for projects results will be enforced.

Dues will not be affected by this decision.

The Board encourages the membership's comments with respect to this proposition.

One specific project that has been proposed to date is the updating of the Snow Load Study. Many areas of the State are not properly addressed by the current Snow Load information. Carl Erickson has developed an equation for determination of snow loads based on elevations, locations, facing slopes, etc. Data must be collected for the verification of the equation. One possible funding effort could be to a graduate student to collect and analyze the data for an updated Snow Load.

Note: The majority of the text was not written by Julie Ott, and was provided by other members of the Board. Unfortunately the member who provided the above SEAU statements did not place their name on the document and I cannot give proper credit.

UPCOMING EVENTS**April 25**

(note date change from 3rd Thursday to accommodate EERI attendees)

Dr. Louis Geschwindner will present the new **AISC Specification/Manual seminar**.

The location and price is still to be determined.

All attendees WILL receive a copy of the new AISC Manual.

Additional information available on the AISC web site and will be e-mailed to all SEAU members as it becomes available. An excellent opportunity!

May 18

ATC 20 Training

May 26-27

The **University of Utah** ASCE student chapter is hosting the **National Steel Bridge Competition** this year. The competition will be May 26-27. **Judges are needed for the event.** Judges do not need to be PE's, but do need to have a technical background and be able to commit to BOTH days. If you are interested in being a judge for the event, please email asce.uofu@gmail.com

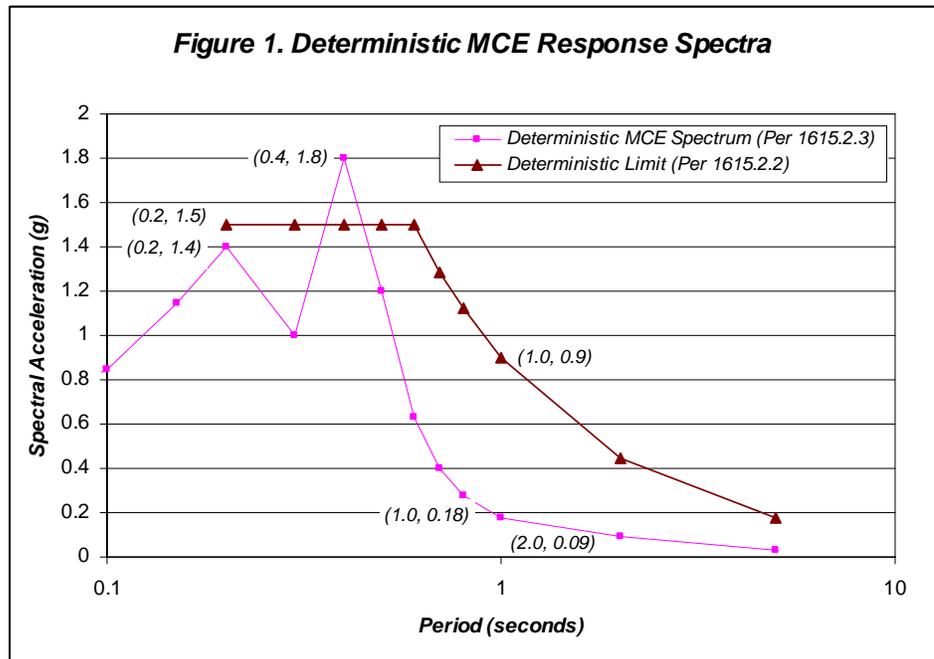
DESIGN SPECTRAL RESPONSE ACCELERATIONS by CHRIS KIMBALL, P.E.

Since beginning work as a structural reviewer for Salt Lake City several months ago, I have been concerned over what I viewed as a misinterpretation of the building code. The 2003 IBC, ASCE 7-02, and FEMA 450 each provide two methods for determining the design spectral response accelerations; these methods are known as the general and the site-specific procedures.

The general procedure utilizes the maps provided in the code to obtain the short-period (S_s) and the one-second (S_1) spectral response accelerations. These values are then adjusted for site class effects to obtain the maximum considered earthquake values. Finally the maximum values are multiplied by two-thirds to obtain the design spectral response accelerations.

As stated in the FEMA 450 commentary, the purpose of the site-specific procedure “is to develop ground motions that are determined with higher confidence for the local seismic and site conditions” than can be determined using the general procedure. The misinterpretation has developed in regards to the “deterministic limit” described in the site-specific procedure. Many have considered the limit values of $S_s = 1.5g$ and $S_1 = 0.6g$ as the maximum values needed for design, even when the values obtained using the general procedure are greater. In truth, those values are used to develop a spectrum representing the lower-bound limit for developing the Deterministic Maximum Considered Earthquake (MCE) Response Spectrum discussed in IBC 1615.2.3.

Section 3.4 of FEMA 450 (2003 edition) provides a clearer description of the site-specific procedure than is found in the IBC and ASCE 7. This section states that “the ordinates of the deterministic maximum considered earthquake ground motion response spectrum shall not be taken lower than...” the deterministic limit spectrum. This verbiage has also been incorporated into the 2005 edition of ASCE 7. In other words, the deterministic limit values are minimum values used for the Deterministic MCE Spectrum only.



An example of the intended use of the deterministic limit is shown in the enclosed figure. A site-specific spectrum is shown along with a deterministic limit spectrum adjusted for Site Class ‘D’. At 0.2 seconds the deterministic limit value is greater than the value obtained in the site-specific spectrum. The short-period acceleration is still taken from the site-specific spectrum however, as 90-percent of the peak acceleration value is greater than the deterministic limit at 0.2 seconds (see IBC 1615.2.5). The deterministic limit does however control the one-second acceleration value as the ordinates at 1.0 and 2.0 seconds are greater than the site-specific values. In this example the $S_{MS} = 1.62g$ (90% of 1.8g) and $S_{M1} = 0.9g$ using the site-specific procedure.

The values obtained from the Deterministic Spectrum are then compared to those obtained from the Probabilistic Spectrum described in IBC 1615.2.1, and the smallest values are chosen as the maximum response accelerations. The design accelerations are then obtained by multiplying the maximum acceleration values by two-thirds. These values must also be checked to ensure that they are equal to or greater than 80-percent of the values obtained using the general procedure (per IBC 1615.2.5).

In closing, the deterministic limits should never be used for calculating design spectral accelerations unless a site-specific study is performed, and the Deterministic MCE Spectrum falls below that of the deterministic limit spectrum.

Chris Kimball, P.E. works for Salt Lake City Corporation as a Structural Reviewer

BULLETIN BOARD**SEAU – SEER COMMITTEE by DANY JP TREMBLEY**

The SEER committee is buzzing with activity. We have a number of projects in various stages of completion. Our chair, Blake Hoskisson, has been busy coordinating the volunteer effort for the Katrina hurricane. The committee has amassed a list of names of engineers willing to donate at least a week of their time to help with building assessments. We conducted a special volunteer meeting on Oct/11 to review procedures and the ATC-45 field guide for flooding. Unfortunately, FEMA has not yet responded to NCSEA's offer to provide volunteers and thus our volunteers, along with the 500 or so around the nation who have also committed to the volunteer effort, are still on standby. The word on the street is that this bank of volunteers may not be taped into by FEMA.

A small related project involves having the committee members prepare an emergency deployment "pack" containing the basic and necessary things which would be needed in the field. This is based on the ATC-45, ATC-20 and accounts from engineers who did participate in the relief effort via other agencies.

A significant project is the organization of a chapter wide training for ATC-20(1). The tentative date has been set for May 18th and the training will be done by NCSEA.

One of our ongoing projects is to organize the members into a distinct action group which can be promoted to the various regulatory bodies of the State's cities and counties as available and ready to help in case of a catastrophic event. To this effect we are developing a flyer listing our capabilities, background, affiliation and contact info and a volunteer manual detailing procedures and required background. The flyer is almost ready and the outline of the manual has been drafted and is being studied.

Our first major promotion effort will be on April 6th in St-George. The Utah League of Cities and Towns will be holding their mid-year conference and devoting all of that day to emergency response. We hope to be able to make a short introductory presentation and begin handing out the flyer.

SEAU – NCSEA 2006 COMMITTEE by BARRY WELLIVER**Hear Ye, Hear Ye, Tell Us All About It**

The SEAU NCSEA 2006 Committee has not finalized the speakers for the NCSEA Annual Conference this September. If you have a notable project or topic that you think would be of interest, please notify me. All submittals will be judged based on uniqueness and usefulness to the engineering community.

Please submit your idea for consideration ASAP as this offer will only be available for a short time.

SEAU – BY-LAWS COMMITTEE by BRENT MAXFIELD**By-Laws Changes**

In this Newsletter, we were hoping to have a discussion regarding the proposed By-Laws changes published in last month's Newsletter. However, since no one has taken the effort to express his or her opinion - either in favor or in opposition - the changes will go to the Board of Directors for a vote this month.

It is still not too late to give us your opinion. If you still want to make suggestions, contact a member of the Board or Brent Maxfield prior to the Board of Directors meeting on March 21.

The By-Laws changes will be voted upon during the upcoming election.

Submittals should contain:

- A) The project/research name.
- B) The presenter's name.
- C) The length of the presentation.
- D) A brief outline of the project/research.

Submittals should be directed to:

Barry Arnold,
NCSEA 2006 Committee Chairman
at barrya@arwengineers.com

SEAU MEMBERSHIP APPLICANTS

The following individuals have submitted an application for approval by the SEAU membership committee for new members:

Jamil Hossain - Professional
Chester H. Rosenbalm – Professional

SEAU NEWS SUBMITTAL DEADLINE

The April SEAU News deadline is **March 27th**.

We expect updates from the following committees:

- Seismic Committee
- Codes Committee
- Legislative Committee
- Technical Committee
- BSSC Delegate

SEAU – PR – WEB PAGE COMMITTEE by JAKE WATSON

Our committee has been diligently working this year to promote SEAU's new Practice Guidelines created by the Professional Practices and Ethics Committee. This month we will print 500 copies and present approximately 200 of them at the building official's annual business meeting in St. George. The remaining copies will be distributed to our members. This committee will continue to work towards more partnerships with building officials and try to increase the public's awareness of SEAU. We also printed SEAU promotional material for the UFOMA conference held earlier this year.

SEAU's Design Criteria section is slowly getting new data. If you haven't tried it yet, please visit. There is a wealth of information available we hope will aid all of our members in practice. We will continue to add cities and counties until we have the state covered. This has turned into a fairly popular feature and is second only to newsletters in popularity. Let me know if you have information about a municipality we haven't addressed or may be out-of-date.

Here are a few useless but interesting statistics about our web site: the average daily unique visits in January was 56 with 102 average daily page views, nearly 100 people downloaded a copy of the *Andaman Nicobar Earthquake* report during January. Hits came from countries as far away as Madagascar, Romania, and Viet Nam. You may not think SEAU is a "high profile" organization, but our newsletters are read the world over and our information is getting world-wide distribution.

Barry Welliver, Chris Hofheins, and myself currently staff this committee. We have a great many other goals to work towards in addition to those mentioned. If you would like to help, please join us! If you are a new member this is a great committee to see the inner workings of SEAU. If you are a more senior member, we are always looking for people with contacts and experience to further our goals. No technical, computer, or public relations experience is required. We only need your enthusiasm!

SEAU – STRUCTURAL LICENSING COMMITTEE by KELLY CALDER

As most of you probably know the SEAU Board of Directors has set a long term goal of establishing a structural engineering practice act. This goal is in harmony with the structural engineering profession's national organizations which are working towards a uniform practice act in all 55 US jurisdictions. The Structural Engineering Institute of ASCE (SEI) has established as one of their major goals the separate licensing of structural engineers. SEI has been joined in this pursuit by the National Council of Structural Engineers Associations (NCSEA).

A practice act would restrict the practice of structural engineering to qualified practitioners for certain types of engineering work. Utah is one of 10 States that currently have a title act for structural engineers which defines who can use the title but does not define what can or cannot be done by a practicing structural engineer.

One major premise behind the effort towards a practice act is simply that the practice of structural engineering is considerably complex, demands highly educated and skilled practitioners; and, most importantly, can have very significant consequences to the public life-safety if not competently executed. It is therefore in the best interests of the public life-safety to regulate the practice of structural engineering to ensure the level of competence of the structural practitioner. A structural engineering practice act would accomplish this goal by providing unified qualifications for those practicing; and, most importantly, would define what types of projects require a structural license.

One interesting fact in support of the above premise is that structural engineering has the highest professional liability in terms of claims to revenue ratio of all A/E disciplines. Obviously when there is a problem with the structural design there are costly consequences.

In December of 2003, the NCSEA member organizations voted to proceed with the establishment of an independent body, the Structural Engineering Certification Board (SECB), to create a national board certification program for structural engineers whose purpose is to differentiate structural engineers as a distinct discipline and establish uniform minimum standards of qualification and competent professional practice throughout the United States. NCSEA recommends certification of structural engineers as the current solution to the lack of separate licensing which is found in most US jurisdictions.

We encourage SEAU members to support NCSEA in their effort by learning more about certification by visiting the SECB website at www.secertboard.org.

In pursuit of the long term goal of establishing a structural engineering practice act in Utah the Structural Licensing Committee has set this year's goals of finalizing a white paper on the topic, and preparing a draft practice act that can be presented to the legislature. We would welcome any input from members and would like anyone that might be interested in helping us on the committee to contact Kelly Calder or Julie Ott.

ADVERTISEMENT



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CARTWRIGHT

CONSULTING ENGINEERS

Cartwright Engineering is looking for structural engineers and drafters for our Salt Lake and Logan offices. Must have strong project management skills and experience in one, or more, of our service divisions: tall buildings, healthcare, commercial, institutional, industrial, mill-duty, and aerospace. Excellent benefits. Salary commensurate with experience.

Email interest and resume to: phil@caceng.com

ON ETHICS by DEBORAH LONG

Warning Bells

Rushworth Kidder, noted ethicist and author of *How Good People Make Tough Choices*, tells a true story about a two pilots and their navigator who failed to listen to their aircraft's warning system. As their plane began to descend, cockpit lights and bells started to go off. The plane's navigational system had picked up indications that the plane was flying too close to the mountain range that surrounded the airport. The computer voice of the warning system called out, "Pull up! Pull up! "Pull up!" Tragically, the pilots ignored those warnings and caused the plane to crash into the mountains. All aboard died. Plane crash investigators later revealed that the pilots' conversations indicated they heard and saw all the warning bells: before shutting off the warning bells, one of the pilots said aloud, "Shut up!" to the system's computer.

Most of us have a warning system, too--bells that go off when we sense a physical threat is imminent. In some cases, our response to danger is physiological: we begin to perspire, our hearts beat louder, or our senses become more acute. When it comes to conflicts or issues that might be psychologically dangerous to us, we have an ethical warning system as well--only we usually call it a conscience. A conscience will serve to keep us from ethical temptation. Cartoonists often effectively illustrate our conscience as the little angel who sits on our shoulders and speaks to us. Gary Watterson, the creator of Calvin and Hobbes, used the character of a stuffed toy tiger to act as a little boy's spiritual mentor. When the little boy, Calvin, would hatch schemes that would get him in trouble, the tiger, Hobbes, would become life-size and attempt to steer Calvin to a higher path.

Most adults have a highly-developed conscience. It effectively warns them away from potential ethical

ensnarements. Experience also teaches us that certain situations are pregnant with moral conflict. Either through experience or through our conscience, we can usually recognize situations that could cause ethical trauma. Some of these situations are:

1. Receiving freebies-- when a vendor offers you a gratuity--whether it is a gift or cash--is the fit really free from obligation? Or is there an expectation that you will provide special favors in return for the gift.
2. Receiving special loans/deals-- if in exchange for a service, you are offered a special loan or deal available only to you, how will that special transaction affect your conduct? What is the expectation of the party giving you the special loan? Is it fair to others that you are the only one to receive this special consideration? How will this transaction look to others if it is discovered?
3. Using company/government resources--when you use resources that are not yours, who really pays the cost of the resources? What if everyone took resources that did not belong to them?
4. Hiring relatives-- what potential conflicts will arise when issues of performance, promotion or attrition are considered? How will the hiring of relatives appear to others?
5. Conflicts of interest-- when you work for two or more parties with opposing interests, with whom do you side? What do you disclose and when?
6. Disclosure-- what is the effect on my clients, customers, and colleagues of disclosing sensitive information? How will it appear if I do not disclose the information? What is appropriate timing of disclosure? What form should disclosure take?

ON ETHICS by DEBORAH LONG

7. Leaving employment--what intellectual property are you taking with you? Should you share that information with your new employer who was a former competitor? Should you inform former clients that you are newly affiliated?

8. Playing politics-- what is the appropriate role of a individual in a regulated business in regard to political contributions, lobbying and other activities?

These kinds of issues should trigger our ethical warning systems. The appropriate reaction to these warning bells is first to acknowledge that a potential problem looms ahead. The next step is to deal with the problem appropriately and effectively. Ignoring our conscience--in a sense, telling it to be quiet or turning it off--means that we will be unable to keep out of harm's way.

ICC SEMINAR IN SAINT GEORGE

| Day | Tuesday, February 21 | Wednesday, February 22 | Thursday, February 23 | Friday, February 24 |
|---------|--|---|---|--|
| 7:00 am | Registration | Registration | Registration | Registration |
| 8:00 am | Wood Construction <i>James Williams P.E.</i> (full Day) Computers can be Your Friend! <i>Nathan Hammer</i> (Full Day) Post Earthquake <i>FEMA</i> (Full Day) | If Your Plumbing..... <i>Ray Moore</i> (Full Day) Conventional Construction <i>Steve Thomas</i> (Full Day) Engineering Concepts Made Easy <i>James Williams P.E.</i> (Full Day) | NEC 2005 Grounding and Bonding <i>Ryan Jackson</i> (full Day) Concrete, Masonry & Steel <i>Steve Thomas</i> (full Day) IBC Accessibility <i>Dan Larsen</i> (full Day) | Truss Class <i>Dee Miller P.E.</i> (Half Day) Uniformity Discussion <i>Jody Hilton</i> (Half Day) |
| 9:30 am | Vender Break | Vender Break | Break | Break |
| 9:45 am | Classes Continued | Classes Continued | Classes Continued | Classes Continued |
| 12:00 | Lunch | Lunch | Lunch | |
| 1:00 pm | Classes Continued | Classes Continued | Classes Continued | |
| 3:00 pm | Vender Break | Vender Break | Break | |
| 3:15 pm | Classes Continued | Chapter Business Meeting Everyone Invited! | Classes Continued | |
| 5:00 pm | | | | |

Several people have asked for specific dates of events at the conference in St. George. Attached is an image of the schedule. SEAU's presentation will be approximately an hour during the Business

Meeting on Wednesday, the 22nd starting at 3:15 This conference is hosted by the Utah chapters of the ICC, not by SEAU. SEAU will still hold our monthly third Thursday meeting on the 16th.

NOMINATING COMMITTEE by JEFF MILLER

The following members are nominees for the 2006 Nominating Committee.

- Steve Cohen
- Chandra Clyde
- Blake Hoskisson
- Jerod Johnson
- David Pierson
- J.R. Richards
- Leon Tanner
- James Williams

The election of the nominating committee will be by electronic ballot. All voting grade members will receive an electronic ballot via e-mail soon, if it has not been received already. If you are a voting grade member, and do not receive an electronic ballot, please cast your vote for four of the eight nominees by sending an e-mail message to SEAU. All voting grade members are encouraged to participate in the election of the Nominating Committee.

Please contact Jeff Miller at (801) 486-3883 if there are difficulties.

SEAU Presents:

Design of Steel Structures for Blast-Related Progressive Collapse Resistance

March 16, 2006

5:30 PM

Engineers & Mines Classroom Building

EMCB 103

University of Utah Campus

Presented by

Ron Hamburger, PE TR Higgins

STRUCTURAL ENGINEERS ASSOCIATION OF UTAH

P.O. Box 58628

Salt Lake City, Utah 84158-0628

www.seau.org



Board of Directors

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Mike Buehner, *Member of the Board/UEC Delegate Elect*