

Steel News & Events

2000 NASCC Offers LRFD Tutorial

If you never learned LRFD in school, or if you need a refresher course, this year's North American Steel Construction Conference will include a 10-hour tutorial. The LRFD program is offered in addition to the Conference's traditional technical sessions and trade show and is included in the standard pre-registration fee of \$325 for AISC members (\$450 for non-members). *To receive the pre-registration fee, you must register prior to January 31.*

Scheduled for February 23-26, 2000 in Las Vegas and sponsored by the American, Canadian and Mexican Institutes of Steel Construction, the conference is a once-a-year opportunity for designers, fabricators, detailers and erectors to come together for practical sessions designed to provide information useful in their day-to-day business.

Highlighting this year's NASCC is the 10-hour LRFD Tutorial, which is designed to provide the practical knowledge to start using LRFD in your design office. If your company is considering transitioning from ASD to LRFD, this course will give you the tools to succeed. Or if you need to short-circuit the learning curve, this course is the ideal vehicle for you. Faculty for the Tutorial are Louis F. Geschwindner, Ph.D., P.E., Professor of Architectural Engineering at Penn State University and Kurt Swensson, P.E., S.E., of KSi Structural Engineers in Atlanta.

Engineers who attend this tutorial will also have a jump start on the scheduled release of the Third Edition LRFD Manual of Steel Construction in the fourth quarter of 2000.

The tutorial will be presented in seven, 1-1/2 hour sessions with each session including time for working

out problems under the guidance of the course faculty. There is no additional fee above the conference registration for attending the LRFD Tutorial. Also, while sessions will build on the material covered in previous sessions, you have the option of only attending specific portions of the tutorial as your schedule permits.

PLENARY SESSION: VIVA LAS VEGAS

This year's plenary session will feature an in-depth look at some of



the incredible structural engineering accomplishments in recent Las Vegas construction, including:

- the Eiffel Tower II (a half-scale model of the original);
- the Hilton Hotel Sign (towering more than 350');
- the Star Trek center at the Hilton Hotel (a 90,000-sq.-ft. entertainment center that includes the suspension of a starship model);
- the Manhattan Express (a large roller coaster supported on a 1,000-ton platform above a casino);
- and the MGM Grand Lion (a 45' high steel-framed sculpture).

MORE THAN 30 SEMINARS

From connection design to a discussion of welding design by Omer Blodgett, the conference features a wide variety of courses for engineers, fabricators, erectors and detailers.

While the program divides the seminars into "tracks", all of the sessions are open to all attendees and engineers and encouraged to attend fabrication sessions, fabricators are invited to attend erection programs, etc.

Attendees have the opportunity of receiving up to 1.55 CEUs or (15.5 Professional Development Hours) for the Conference, plus up to an additional 0.9 CEUs (9 PDHs) for the pre- and post-conference short course.

Sessions include:

- Connection Research Results
- Steel Deck Topics
- Q&A: Steel Interchange Live
- Evaluating Fire Damage
- Welding Lessons Learned
- Materials Issues
- Rules of Thumb for Steel Design
- AISC Specifications
- Steel Joist Topics
- Industrial Building Design
- Seismic Design of Concentrically Braced Frames
- Connection Software
- Design Build Issues
- Seismic Response of Slender High-Rise Buildings
- Changes in the Code of Standard Practice
- Electronic Data Interchange
- Changes in Subcontract Forms
- Robotic Welding
- Revised Sophisticated Paint Endorsement
- Taking Your Weld's Temperature
- E-Steel: Using the World Wide Web to Improve Your Business
- Detailing for Steel Construction
- Advances in Detailer Training
- Detailer Programs for Today and the Future
- Guidelines for Successful Steel Construction: The Detailer's Point of View
- Composites in Bridge Construction and Renovation
- AISC Erector Certification Program
- Welding Issues in the Rehabilitation of Existing Structures
- Cases Studies in High-Strength Bolting for Steel Erectors
- Behavioral-Based Processes for

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NASCC, Cont.

Erectors

- Erection Issues at the new San Francisco International Airport Terminal

The plenary sessions, as well as seven of the technical sessions, will also be translated in Spanish.

EXTENSIVE TRADE SHOW

In addition to the educational sessions, the conference features an extensive trade show featuring more than 125 booths and offering a look at the latest products for steel designers and contractors.

Recent exhibitors have included engineering and fabrication/detailing software vendors, bolt manufacturers,

welding suppliers, fabrication equipment manufacturers, paint and galvanizing vendors and safety product suppliers.

The Conference is co-sponsored by the Canadian and Mexican Institutes of Steel Construction.

To receive more information on the 2000 North American Steel Construction Conference, fax 312/670-5403 or consult the AISC website at www.aisc.org.

In Memoriam: Charles Peshek, Jr. (1922-1999)

Charles Peshek, Jr., former regional engineer, director of fabricating operations and standards and staff secretary for standing committees for AISC, died on Monday, November 29, 1999, in Des Moines, IA, after a lengthy illness.

Born in Zanesville, OH, on November 8, 1922, Peshek received a Bachelor of Science degree from Ohio University in civil engineering in 1947. Before entering college, he served in World War II as a tank commander, receiving four Battle Stars, a Purple Heart, and other awards with the Seventh Armored Division.

From 1947 until 1953, the American Bridge Division of U.S. Steel employed Peshek in Trenton, N.J., as a steel detailer and checker. He then moved to Belmont Iron Works in Philadelphia, PA, as a design engineer, assistant chief engineer, and chief estimator.

Peshek was hired by AISC in 1971 as a regional engineer in New York City and then moved on to Chicago in a staff position

overseeing the certification program. Employed by AISC for the next 20 years, he was instrumental in bringing about the quality certification program.

During the early 1970s, AISC decided to establish a program that would separate qualified fabricators from unqualified fabricators. In June



of 1975, President Van W. Coddington announced the AISC quality certification program. Peshek was named quality certification administrator in mid-1975.

The quality certification program was created to do two things: create quality systems and give the cus-

tomers comfort that quality systems were in place. Peshek was the liaison between AISC and ABS (American Bureau of Shipping), a worldwide certification organization.

Peshek launched the actual auditing process, and he dealt with around 300 companies. "It was really a task to keep on top of all this before computers, and Charlie did all of that," said Farnham Jarrard, President of Quality Auditing Company.

"Charlie Peshek made AISC what it is," said Fred Beckman, former AISC Director of Bridges. "He was a good source of information when you needed it."

The AISC certification program has grown from 300 certified companies when Peshek first began on the project to 565 companies, and "is a program promoted and enthusiastically supported by AISC," said Lewis Brunner, AISC's Director of Meetings and Conventions.

His wife, Catherine Peshek, and two daughters, one son, and seven grandchildren survive him. Contribution to his name may be made to the Ecumenical Adult Care of Naperville, IL, or the building fund of the Covenant Presbyterian Church in West Des Moines, IA.

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McGuire Earns Geerhard Haaijer Educator Award

William McGuire, author of the acclaimed textbook, "Steel Structures," has been awarded the Geerhard Haaijer Educator Award. McGuire, a long-time professor with the Department of Civil Engineering at Cornell University in Ithaca, NY, was honored by AISC both for his work as an author and researcher as well as his outstanding reputation as a teacher and mentor. McGuire has previously received a T.R. Higgins Lectureship Award for his innovative work on computer applications in the steel design and construction industry.

The Haaijer Award, named for one of AISC's most respected Vice Presidents/Technology and Research, is given in special recognition to individuals who, through their research and teaching, have had an outstanding impact on advancing the use of structural steel framing in the construction industry. This year's award will be presented at a special session on February 24 at the North American Steel Construction Conference in Las Vegas. As part of the event, McGuire is scheduled to make a short presentation.

Also receiving awards at this year's NASCC are:

• **Lifetime Achievement Award: Lynn S. Beedle.** Beedle is a Professor at LeHigh University and former chairman of the Council on Tall Buildings and Urban Habitat. He also was a long-time member of both SSRC and the AISC Specifications Committee. Together with Ted Higgins, Beedle was in the forefront of much of the innovative research on steel that emerged in the 1950s and 1960s. His influence continues today through such notables as John Fisher, Ted Galambos, Reidar Bjorhovde, Joe Yura, Ray Tide and George

Driscoll. Beedle also received a T.R. Higgins Award for his work on plastic design.

• **Lifetime Achievement Award: James M. Fisher.** Fisher is Vice President at Computerized Structural Design and is recognized as the leading expert nationally on industrial building design. While not well-known to the general public, he is regarded as an "engineer's engineer," a professional whose advice and knowledge is sought after by other practitioners. Fisher is a long-time AISC Specification Committee member and is the author of AISC Design Guides #7 (Industrial Building's: Roofs to Column Anchorage), #3 (Serviceability Design Considerations for Low-Rise Buildings), and #10 (Erection Bracing of Low-Rise Structural Steel Frames).

• **Lifetime Achievement: Srinivasa (Hal) Iyengar.** As Skidmore Owings & Merrill's chief structural engineer for almost two decades, Iyengar was involved in many of the most significant structural projects in the U.S. and around the world—including most recently the Guggenheim Museum in Bilbao, Spain. He also is recognized for his work in the organization of steel systems methodology (e.g., that the kind of system you should utilize for a three-story building is different than that for a 30-story building). Iyengar is credited with having made a science out of steel building analysis.

• **Special Achievement Award: Geoffrey L. Kulak.** A professor at the University of Alberta, Kulak is recognized as one of the foremost contributors to the improvements in structural connections during the past two decades and was directly responsible for the second edition to the "Guide to Design Criteria for Bolted and Riveted Joints."

• **Special Achievement: Dennis R. Mertz.** A professor at the University of Delaware, Mertz was instrumental in the work in developing LRFD for bridges to supplant the older LFD methods.



Jim Fisher will be presented with an AISC Lifetime Achievement Award at this year's North American Steel Construction Conference

• **Special Achievement: James O. Malley and Ronald O. Hamburger.** Malley, a senior principal at Degenkolb Engineers, and Hamburger, a senior vice president at EQE International, were the leaders in shepherding the new developments in seismic design developed through the FEMA/SAC initiatives.

• **Special Achievement: Joseph Spears.** As a designer at HOK, Spears was in the forefront of developing the look and feel of a new baseball stadium for a minor league team in Buffalo. This new stadium ushered in a new era in design and represents the direct design antecedent for such successful projects as Jacobs Field in Cleveland, Camden Yards in Baltimore, and the Ballpark at Arlington in Texas.

Each of the Lifetime and Special Achievement Award recipients have also been asked to make short presentations at the Conference. To receive a full NASCC program, please fax 312/670-5403 or consult AISC's web site at www.aisc.org.

Iverson Honored with Leadership Award

F. Kenneth Iverson, retired chairman of Nucor Corporation, was presented with The Robert P. Stupp Award for Leadership Excellence at this year's AISC Annual Convention. The Stupp is given in special recognition to individuals who, through their leadership, have had an outstanding impact on advancing the use of structural steel in the construction industry.

Under Iverson's leadership, Nucor catapulted to the forefront of the structural steel marketplace. In large part, his success was the result of his willingness to gamble on electric arc furnace technology. Utilizing scrap material rather than iron ore and coke, this process has now largely replaced conventional integrated mill production in the wide flange marketplace. The result of this achievement has been substantially improved productivity and lower costs for steel. In large part due to Iverson, the cost of steel today is, for many sections, lower than it was nearly two decades ago.

AISC also awarded two lifetime and two special achievement awards at the convention:

• **Lifetime Achievement Award: Robert L. Nickerson.** Bob Nickerson built his reputation at the FHWA as the nation's leading proponent of steel bridge design and construction. Early in his career, he realized that one of the biggest challenges facing the steel bridge market was the poor quality of details incorporated into many designs. He initiated a long effort to bring fabricators and designers together to develop more economical and efficient steel designs.

Continuing his fight for steel, Nickerson championed the use of weathering steel. Early in the 1980s,

weathering steel represented less than 10% of the total bridge market. Nickerson was instrumental in developing the FHWA Weathering Steel Advisory, which laid the groundwork for the successful use of weathering steel. Today, weathering steel represents more than half the steel bridge market.

During the early 1990s, Nickerson also worked to promote the use of steel in short span bridges—a market that the steel industry had all but abandoned. His efforts led to several developments in cost-effective short span steel bridges.

Finally, Nickerson was instrumental in the successful effort to bring high-performance steel into the U.S. market..

Nickerson, who previously was Chief, Structural Division, FHWA, is currently president of NBE, Ltd., a consulting firm headquartered in Hampstead, MD.

• **Lifetime Achievement Award: Omer W. Blodgett.** Omer Blodgett is widely recognized as the nation's foremost expert on structural welding and has worked as a welding consultant with The Lincoln Electric Co. since 1945. It is a toss-up, however, as to whether he is best known as a lecturer or author.

His lectures are renowned internationally, and he has spoken at conferences in such diverse countries as Japan, Australia, Turkey and Mexico. His lecture seminars at Lincoln are widely considered almost mandatory for fabricators and designers who want to learn more about the art of welding.

As an author, he is widely published in both AWS and AISC publications. He is best known, however, as the author of "Design of Welded Structures," the bible for the welding design industry.

• **Special Achievement Award: C. Farnham Jarrard, Jr.** As a former member of the AISC Board of Direc-

tors, Farnham Jarrard is well known by the steel fabrication community. But even more than his achievements as a fabricator, he will always be recognized for his instrumental efforts in the advancement of the AISC Quality Auditing Program and the creation of the Quality Auditing Co.

AISC Quality Certification has grown during the past decade and is now considered vital for successful fabricators.

Jarrard is currently president of the Quality Auditing Co., which performs audits on both fabricators and erectors.

• **Special Achievement Award: Clark B. Olsen.** By working closely with the general contractor, and through creating a partnership with three other fabricators, Clack Olsen and Utah Pacific Bridge & Steel Corporation, created a successful model for competing on major infrastructure projects. Utah's I-15 roadway construction includes nearly 125—and largely through Olsen's efforts, more than half of these bridges will be built from steel.

Olsen is president of Utah Pacific Bridge & Steel Corporation in Pleasant Grove, UT.

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ENR Editor Stresses Work Force Needs

"It's important that every professional in our industry ask himself, 'Am I leading change? Am I planning for success?'" stated Howard B. Stussman, ENR's Editor-in-Chief at AISC's recent Annual Convention. Stussman, the event's keynote speaker, addressed the future of the engineering and construction industry and identified a series of "megatrends" that will have already begun transforming the industry.

Workforce considerations topped Stussman's list of critical issues. "Gen X is bypassing the construction industry for more glamorous and more lucrative fields," he explained. "We ask students how many want to go into the construction field, and very few raise their hands. We ask how many want to go into law, and a lot of hands go up." Part of the problem is unrealistic expectations. In a recent study, more than half of high school students expected to go into professional fields; however, only 20% of the available jobs were in that area. "The biggest job opportunities out there are for skilled professionals, including the construction field."

In engineering, the problem is both lack of applicants and the poor training they've received. According to Stussman: "Fifty-eight percent of engineering CEOs say students are not prepared for the workforce."

Part of the solution is to improve the image of the engineering and construction fields. "The construction industry is viewed as interchangeable drones. The public doesn't think about engineering and construction—they take it for granted," Stussman stressed. "We shouldn't judge our success on whether we're on-time or on-budget. We should be looking at the value we



add to a project. The public's image of a profession is tied to the ability to get paid for the value you provide."

Another part of the solution is to emphasize continuing education and mentoring programs within engineering and construction companies. "People are leaving the industry and they often cite a lack of mentoring and a lack of training."

Finally, Stussman said that the image of the design and construction industry would improve if its members treated each other as professional colleagues rather than adver-

saries—both within their specific field and within the project team. "We have a very combative attitude towards our fellow team members."

A second megatrend that Stussman identified is the ongoing change in project delivery. "There's a new Golden Rule: He who has the gold, makes the rules. Owner's are expecting consultants to reduce costs." The trend in project delivery is towards combining control and responsibility, similar to the old master builder concept. However, in the future, there may be the addition of the master builder also providing or obtaining the financing for a project.

The final trend emphasized by Stussman was the transformation of the industry by technological advances. "While it will improve productivity, it also expands the difference between technological haves and have-nots," he warned. He also noted a tendency for production to move overseas, in part due to lower labor costs, but also as a result of a need for 24-hour engineering and work sharing.

Web-Based Project Management

While faxes and email have become commonplace for requesting information and proposals, a new generation of project management web sites is promising to dramatically simplify and speed up the process.

The most comprehensive of these sites is bidcom.com, which has been operating since July 1997. Billing itself as a "web-based communication and collaboration service for the construction industry," bidcom offers both file management and an intelligent RFI management system. "The way the site handles RFIs is really the core of the system," according to Charlie Kuffner, a senior vice presi-

dent with San Francisco-based general contractor Swinerton & Wallberg. "What bidcom offers is real-time work flow." Essentially, the system revolves around what the company calls "the ball's in your court." When a participant sends an RFI, a notification appears on the recipients' computers. The sender can track the progress of the RFI—and perhaps more importantly, so can others. "It creates big accountability," stressed Kuffner, who has been using bidcom for more than two years.

It also helps to speed response. "We've cut RFI turn-around from about 1-1/2 weeks to less than one-half-a-week," Kuffner claimed. And that time savings translates into big savings for the project's owner. For the owner of a 400,000-sq.-ft. build-

out in San Francisco that Kuffner worked on, rent totaled \$40,000 per day. "We couldn't afford delays. If RFIs were delayed, it meant overtime costs."

Some of the time savings are the result of the pressure created by knowing that others are tracking the progress of the RFI. In addition, however, the project management function of the software helps. As with most of its brethren, bidcom functions as a central repository for all project information. Since all members of the project team—from the general contractor to the structural engineer to the bricklayer—have access to project information, it's easier to respond to an RFI.

Of course, all of this functionality has a price: Bidcom charges \$50 per user/per project/per month.

The newest of these project management sites offers a different model. Buzzsaw.com has only been up and running since November 1, but approximately 30 users have been beta testing it for more than six months. "One of the major differences with buzzsaw is that there's no learning curve," explained Chris Bradshaw, Vice President of Marketing at buzzsaw. The site offers 100 MB of free storage and then charges \$199/month for between 100 and 250 MB of storage and \$199/month for each additional 250 MB of space. Buzzsaw utilizes a simpler RFI process. "You put your RFI in a folder and then launch a wizard that helps you notify recipients via email," Bradshaw said.

The centralized file management functionality of buzzsaw proved most attractive in beta testing, according to some users. "It was very useful for collaborating on the design and distributing changes," explained Doug Cochran, a CAD manager with LPA, Inc., an Irvine, CA, architectural firm. Added Shao-ying Cheng of Degenkolb Engineering in San Francisco, "We used it on a variety of special projects. It was especially useful

in operating from different sites and from a home office rather than needing several different sets of drawings."

Internet-based project management is clearly a rapidly growing phenomenon. "Everyone's using some form of computer application. These new 'enterprise applications' enhance or replace the services now performed by contact management, accounting and project management software," explained Dennis Byron, Research Director with International Data Corporation in Framingham, MA. "You don't need your own IT staff to maintain extensive databases. What's particularly appealing to the A/E/C community is the ability to create a 'virtual connection' that allows you to communicate with different partners on different projects in the same way."