

IN MEMORIAM

Steel Industry Mourns Richard Kaehler

AISC and the entire structural steel industry were saddened to learn about the passing of an industry leader, Richard C. Kaehler, P.E. Kaehler lost his battle with cancer on Wednesday, March 25, the day he was to receive an AISC Lifetime Achievement Award at NASCC: The Steel Conference in Nashville. He was 60 years old.

Kaehler was actively involved in the development of the AISC *Specification* and *Manual* for many years. He served as editorial chair of the *Specification* for 10 years and was a member of several AISC task committees. He also served as a consultant on a number of AISC manuals, including the *HSS Connections Design Manual*, the 3rd Edition *LRFD Manual* and the 13th and 14th editions of the *Steel Construction Manual*.

“We will all miss Dick’s quiet, yet always wise and steadfast, demeanor,” said Cynthia J. Duncan, AISC’s director of engineering. “His many contributions to the *Specification* and *Manual* will not be forgotten.”

Kaehler joined Computerized Structural Design (CSD), S.C., in 1982; he was named associate in 1986 and principal in 1989. He was responsible for structural failure investigations, structural testing, structural analysis and design, product research and vibration studies, as well as many computer programs used by CSD and its clients.

Kaehler is survived by his wife, Suzanne.



SAFETY

AISC Names 2014 Safety Award Winners

Fifty-two structural steel facilities have earned an AISC Safety Award for their safety record during 2014, in the categories of “Shop and Office” and “Field Erection.” Awards include the Safety Award of Honor—AISC’s top award for safety, presented for a perfect safety record of no injuries requiring days away, restrictions or transfers—Safety Certificate of Merit and Safety Certificate of Commendation.

“AISC’s annual Safety Awards program recognizes excellent records of safety performance, and we commend these facilities for their effective accident prevention programs,” said Tom Schlafly, AISC’s director of safety. “Periodic recognition of safety in the workplace has been demonstrated to provide worker incentive and a reminder of the importance of safe practices.”

The AISC Safety Awards program is open to AISC Member fabricators and erectors. For more information on the awards program and safety resources for the structural steel industry, please visit www.aisc.org/safety; to view the winners, scroll down and click “Past Safety Award Winners.”



People and Firms

- Multi-directional forklift manufacturer **Combilift, Ltd.**, is investing \$50 million over the next two years in a new manufacturing facility in Ireland, which will also create 200 additional jobs over the next five years. The company has purchased 100 acres of industrial zoned land where the new purpose-built, 430,000-sq.-ft. greenfield manufacturing site will be built. It will include a dedicated research and development building and adjoining administrative offices, and will be more than double the size of the company’s present manufacturing facilities.
- **DeSimone Consulting Engineers**, a structural engineering firm with offices in New York City, Miami, San Francisco, New Haven, Las Vegas, Boston, Hong Kong and Abu Dhabi, announced the opening of its first South America office in Medellin-Antioquia, Colombia.

SPECIFICATIONS

2016 Draft Available for Public Review

The 2016 draft of the AISC *Seismic Provisions for Structural Steel Buildings* will be available for public review until May 29, 2015. This specification will be available for download on the AISC website at www.aisc.org/publicreview along with the review form during this time. Copies are also available (for a \$35 nominal charge) by calling 312.670.5411. Please submit comments using the form provided online to Cynthia J. Duncan, AISC’s director of engineering (duncan@aisc.org) by May 29, 2015 for consideration.

Keeping Tabs

I read “Fielding Modifications with Ease” by Brady Broom in the March issue and took exception to the premise that joist modifications can involve the manufacturer. While this is certainly a real possibility during the construction phase of a new project or shortly thereafter, it has been my experience that the vast majority of joist modifications occur well after the early stages of construction. As a result, it is difficult and more often than not impossible to determine who the manufacturer was—and even if you are successful, the likelihood that the manufacturer has kept records for the project in question for any length of time is slim to none.

—*D. Matthew Stuart, S.E., P.E.*
Structural Division Manager
Pennoni Associates, Inc., Philadelphia

Brady Broom responds:

Thank you for the feedback. Yes, as you surmised, the article was directed specifically to the construction phase of a new project and was not intended to address building renovations. We should have been clearer on this point.

In regard to renovation projects, depending on the building age and record keeping, in many instances the original joist manufacturer can be located and will assist with the joist analysis and design of recommended joist modification details. Most modern joist manufacturers retain electronic copies of old joist designs for several years after completion of the original project and regularly assist with analysis of existing joists subjected to revised design loading.

However, as you point out, many joists in existing buildings were produced by joist manufacturers who are no longer in business. In such cases, the SER likely must find other means of evaluation. SJI’s Technical Digest #12 is an excellent resource for this purpose.

Value above All

Disappointment, if not resentment, was my emotion upon reading Scott Melnick’s use of a Jim Pancero seminar to preface the denigration of non-AISC Certified fabricators in his March editorial. Having attended two previous seminars by Mr. Pancero, I recall him not only admonishing us to sell on value vs. price, but also to articulate why, given all the competitive alternatives, a customer should buy from me vs. my competitor.

—*Dennis R. McCartney*
Vice President
B&B Welding Company, Inc.
Ft. Howard, Md.

RESEARCH

Geometric Cutouts May Enhance Steel Performance

While working as a structural engineer in California, Matthew Eatherton saw myriad ways the structural steel industry could delve into the then-burgeoning fields of subtractive and additive manufacturing—the latter commonly referred to as 3D printing—and improve building performance.

Now an assistant professor with Virginia Tech’s Charles E. Via Jr. Department of Civil and Environmental Engineering, Eatherton will be using a five-year, \$500,000 National Science Foundation CAREER Award to research how steel plates with carefully designed geometric patterns—or voids—cut into them can better withstand everyday loads and extreme events (high winds, blast or shock from an earthquake) than the standard solid steel plates currently used. The research work builds on an earlier award, AISC’s

Milek Faculty Fellowship grant; Eatherton received the fellowship for the years 2012–2015 in support of his research on buckling-resistant steel plate shear walls.

“We have a unique opportunity to advance the industry and improve performance,” Eatherton said of steel-framed buildings subjected to earthquakes and other hazards.

Steel buildings are designed to flex without fracturing as they absorb extreme lateral loads from earthquakes or high winds (a property known as ductility). Eatherton’s solution is to “improve ductility and energy dissipation ability by strategically removing material from the plates rather than adding more material.” By introducing small cutouts—ring-shaped, butterfly-shaped, etc.—global shear deformations in steel plates can be converted into smaller ductile mecha-

nisms that resist buckling and increase stiffness within steel structures.

As part of the CAREER Award, Eatherton will be able to fund two civil engineering doctoral students to work on the project in addition to another doctoral student already working on the research.

