

## AISC Assistant Director Of Education Retires

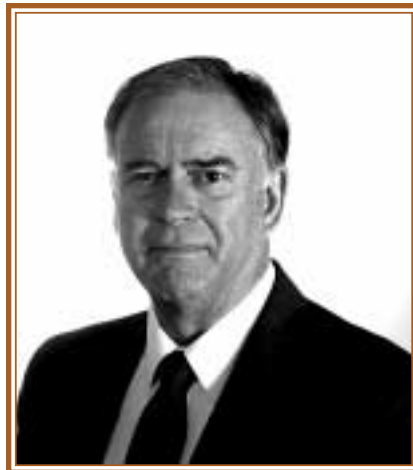
After almost three decades at the American Institute of Steel Construction, Inc., Lewis (Lew) Burgett is retiring. In addition to working on his golf game, however, he also plans to remain active in the steel industry through consulting.

Since starting at AISC in 1970, Burgett has worked in several parts of the country, first as a regional engineer and finally as AISC's Associate Director of Education. He began as a regional engineer in Syracuse, NY, followed by stints in Memphis and Charlotte. Next, he served as the Southern Regional Engineer and Southeast Regional Manager in Atlanta before taking his current position as Associate Director of Education.

As the Associate Director of Education, Burgett has been responsible for preparing and presenting lectures on steel design, conducting seminars, making presentations on steel design at various group meetings, and answering technical questions. All told, he averages more than 30 presentations per year and is on the road almost at least twice a month. It is that direct contact with practicing engineers that he finds most rewarding.

"The challenge of this job is the preparation of and the presentation of lectures that will convey some ideas and methods to the practicing engineer that will improve him or her as a professional," Burgett explained.

Robert Lorenz, Director of Education at AISC, said Burgett has made a significant contribution to AISC as well as to practical steel design. "Lew Burgett is a very modest and unassuming man," Lorenz said. "His lectures have always been filled with anecdotes, humor and practicality." And, of course, the lectures also helped the practicing engineer design bet-



*Lewis Burgett, AISC's Associate Director of Education, is retiring after working with the organization for nearly thirty years.*

ter in steel.

Lew Brunner, Director for Meetings and Conferences for AISC, added that Burgett will be greatly missed by those in the industry who have come to know and rely on him. "It is impossible to measure the contribution Lew Burgett has made to the steel industry," Brunner said. "A wide array of experienced and novice engineers have taken advantage of his counsel and relied on his advice."

Burgett attended Auburn University in Alabama, receiving his bachelor's degree in civil engineering in 1952. Five years later, he received his master of science degree in engineering from the University of Tennessee.

His first job was with the Tennessee Valley Authority, where he helped in the design of steam plant facilities. Before coming to AISC, he worked with several other companies, including: Convaire, where he performed aircraft stress analysis. Later, with the U.S. Army, he worked as a civil engineer at the Redstone Arsenal in Huntsville, AL; and then to Markwell & Hartz, where he did bridge design. A new opportunity

took him to NASA at the Kennedy Space Center, where he did design management of launch and checkout facilities. Before leaving NASA, he was assigned to the important position of chief of civil engineering at the Kennedy Space Center.

Burgett is a registered PE in Alabama, New York, North Carolina, South Carolina, Tennessee and Georgia. He is also member of the American Society of Civil Engineers (ASCE). Several of his articles have been published in the Engineering Journal, including what he considers to be his best, "Selection of a Trial Beam-Column."

Retiring isn't going to be all rest and relaxation for Burgett. He plans to keep abreast of developments in the steel design and construction industry, as well as possibly doing some consulting. In between all the work, he will find some time to be with friends and family, read, travel and play a little golf.

### HSS Seminars Draw To A Close

In response to the growing popularity and use of hollow structural sections, AISC has held, and will continue to hold, HSS seminars throughout the U.S. The seminar, offered in association with the Steel Tube Institute and the American Iron & Steel Institute, will review and cover all aspects of HSS design and connections, including both simple and moment connections.

The final three seminars will be held June 16 in Los Angeles, June 17 in San Francisco and June 18 in Seattle. If you haven't yet received information on the seminars, fax a request to 312/670-5403 or point your favorite web browser to [www.aisc.org](http://www.aisc.org).

## Fatigue Primer For Bridge Engineers

The latest publication from the National Steel Bridge Alliance is designed to provide structural engineers with the necessary background to understand and use the current rules for fatigue strength. A Fatigue Primer for Structural Engineers examines the fundamentals of fatigue and looks at basic fracture mechanics concepts, fatigue strength analysis, fatigue assessment procedures for variable stress ranges, distortion-induced fatigue cracking, inspection and repair of fatigue cracks. In addition, the 130-page book includes 13 example problems, including several examples pertaining to the AASHTO Specifications.

According to the guide's introduction: "It is inevitable that cracks or crack-like discontinuities will be present in fabricated steel elements, and it is the responsibility of the engineer to consider the consequences in terms of brittle fracture and in terms of fatigue....The purpose of this publication is to provide the student and practicing engineer with the background required to understand and use the design rules for fatigue strength that are currently a standard part of design codes for fabricated steel structures. The approach adopted establishes the basis for the problem in terms of fracture mechanics, that is, an analytical tool that accounts for the presence of a crack in a structure. The focus is then directed specifically upon the issue of fatigue."

The book, which is available for \$36 + s/h, was written by John W. Fisher from Lehigh University, Geoffrey Kulak from the University of Alberta, and Ian F.C. Smith from the Swiss Federal Institute of Technology. To order a copy, call 800/644-2400 or point your favorite web browser to: [www.aisc.org](http://www.aisc.org).

## FHWA Demonstration Project Nears Completion

The Federal Highway Administration (FHWA) Office of Technology Applications (OTA) is developing training aids for a demonstration project, "Heat-Straightening Repairs for Steel Bridge Members." The work, which is expected to be completed this summer, is part of a cooperative agreement between the FHWA and Southern University in Baton Rouge, Louisiana. The cooperative agreement was executed under Section No. 6001 of the Intermodal Surface Transportation Efficiency Act of 1991. The technical development work for this project is being performed by Richard Avent, Ph.D., President, Structural Damage Control, Inc. and a Professor at Louisiana State University, under a subcontract with Southern University. Krishna Verma, Welding Engineer of the Bridge Division (HNG-32), is serving as the Agreement Officer's Technical Representative (AOTR) and providing technical assistance in this effort.

The following training aids are being developed:

1. A comprehensive manual on heat-straightening repairs
2. A video demonstrating heat-straightening repairs
3. A bilingual (Spanish and English) CD-ROM interactive multimedia computer program for heat-straightening repairs for both engineers and technicians

Upon completion, training aids will be made available to FHWA field offices and State DOTs.

For more information, contact at 202/366-4601.

## Call For Papers: Engineering Journal

AISC is continuously looking for *Engineering Journal* articles on interesting topics pertinent to steel design, research, steel fabrication methods, or new products related to the use of steel in construction. The Institute is especially seeking technical articles with practical applications in the steel industry. If you have a new idea or an improvement on an old idea, please submit a paper to AISC for publication in the *Engineering Journal*.

Please send your paper in duplicate to:

**Engineering Journal**  
**American Institute of Steel Construction, Inc.**  
**One E. Wacker Dr., Ste. 3100**  
**Chicago, Illinois 60601-2001**

The following is general information on AISC's review process and detailed requirements for submittals.

### REVIEW PROCESS

A Peer Review Panel consisting of engineers selected from among AISC, the structural steel industry, design firms and universities will review all papers submitted for publication. The articles published in the *Engineering Journal*, are examined for the following: (1) originality of contribution; (2) technical value to the steel construction community; (3) proper credit to others working in the area; (4) prior publication of the material; and (5) justification of the conclusion based on the report.

Papers not accepted will be returned to the author. Published papers become the property of the American Institute of Steel Construction, Inc. and are protected by appropriate copyrights. No proofs will be sent to authors. Each author receives one copy of the issue in which his contribution appears. Up to 10 additional

copies will be supplied to the authors, without charge, if desired. Reprints of papers can be ordered at actual printing cost.

### MANUSCRIPT PREPARATION

Manuscripts should be typed, double-spaced, on 8 ½ x 11-in. white bond paper, using one side of paper only.

**Title and by-line:** The title and by-line should appear on page 1. The exact name, title and affiliation of the author or authors are required.

**Headings:** Headings should be typed flush left, capital and lower case, with 2 line spaces above.

**References 1:** The references should be noted clearly in the text as shown, and should be typed, double-spaced, on a separate page in the following style:

1. Doe, John M., "Structural Steel", Engineering News Record, February 30, 1900, page 6.

**Footnotes:** \* Footnotes should be noted clearly in the text as shown, and should appear at the bottom of the text page, in the following style:

\* For a detailed discussion, see...

**Tables:** Tables should be presented on a separate page. Footnotes to tables should appear below the table, identified by raised lower case letters (a, b, c, etc.).

### ELECTRONIC COPY

Include an electronic copy of your manuscript on disk. Any word processing format is acceptable, on either the Macintosh or IBM-compatible platforms. A laser printer proof should be enclosed with the disk.

### ILLUSTRATIONS

Whenever possible, technical drawings should be submitted on disk as .dxf (Drawing Exchange Files) files; graphs and charts should be submitted as .eps

(Encapsulated Post Script) or spreadsheet files (Excel or Lotus 123). A printed proof of each .dxf or .eps file should be enclosed with the disk.

If illustrations are submitted on paper only, they should be suitable for direct black-and-white reproduction at reduced scale without redrawing. Photographs should be on 8 x 10-in. glossy paper, and of sufficient clarity to permit reduction to a 3¼" column width. All illustrations should be numbered in soft blue pencil on the back to correspond with their captions. Captions should be typed, double-spaced, on a separate page.

(To subscribe to Engineering Journal, call 312/670-5444, fax 312/670-5403 or point your favorite web browser to: [www.aisc.org](http://www.aisc.org).)

## The "Ten Commandments" Of Construction Change Orders

By James C. Constance

Today, more than ever before, construction contract change orders can literally make or break a job in terms of profitability. All too often, contractors either ignore or let slide their responsibility to stay on top of this important situation. It is crucial that contractors be timely in requesting that these change orders be signed and be diligent in insisting that all parties to the contract, including their own employees, adhere to the terms.

Contractors who have had the most success with managing change orders seem to follow certain "themes" or rules that assist their continued profitability and make their lives simpler. It may be surprising in the frantic area of management that profitability can

be improved and life made simpler at the same time. But it's true. Often, a less successful manager spends most of his or her time on low-priority items while ignoring the important things. They're guilty of "stomping ants" while the elephants run wild.

### THE TEN COMMANDMENTS

**I. Know thy contract.** You can't expect to do well with changes if you can't identify what a change is or what the rules are. You can't identify a change unless you know from what it is changed. The rules are in the contract.

**II. Do not give away thy leverage.** The owner wants the project complete and wants changes made to accord with its whim and fancy. You want just compensation. So far, so good. But if you give the owner what it wants without receiving what you deserve, you've lost your leverage.

**III. Thou shalt not ever, at any time, anyhow, for any reason, under any circumstance, perform changed work without a written, signed, authorized change order.** Read your rules.

**IV. Depend not on thy attorneys to bail thee out.** Use attorneys for advice. Fight your own battles.

**V. If thou askest not, thou receivest not.** If you don't request full compensation, you won't receive full compensation. There are remarkably few instances of owners or general contractors who will pay for items you leave out of your change order request.

**VI. Time is money.** Have the pricing down? Think you've got it all covered? How much time did you request? Read the rules. You get money and time for changes.

**VII. Surprise not thy owner.** This applies to general contractors and subs as well. Don't assume that the owner or general contractor knows about delays or disruptions that are affecting your work. Just like you, owners and general contractors have budgets and management options. The more advance notice they have regarding potential cost increases, the easier it will be for them to work out solutions with you that will minimize additional costs or provide you with equitable compensation. Communication is a key to successful management.

**VIII. Be persistent.** Persistence gets results.

**IX. Thy bargaining power equaleth that of others.** The bargaining power you have is equal to that of the owner or general contractor, unless (a) you don't know the rules, or (b) you throw away your leverage, or (c) you choose not to use your leverage.

**X. Thy job is not finished until thy money be collected.** This is the bottom line. The unsuccessful offer excuses. The successful offer profitability.

As you can see, the above is not rocket science, but rather an organized, diligent and persistent approach to managing the business portion of construction jobs. There are many factors over which a contractor has little control. But this is not one of them. Establish the change order procedures your company will use and then follow them diligently.

*Jim Constance is a senior consultant and manages Turn-around/Workout engagements for FMI, a management consulting firm with offices in Raleigh, NC, Denver, and Tampa. He can be reached at 602/340-4097 or email [jconstance@fminet.com](mailto:jconstance@fminet.com).*

## Clarification

While an excellent connection for many applications, the field welded connection shown in Figure 1 of the article "Moment Connections to Column Webs" in the March 1998 issue of *Modern Steel Construction* (page 65) should not be used in high seismic zones or in other situations wherein yielding of the parent or filler materials is expected in service. For these types of load demands one should follow the SAC guidelines (FEMA 267).

Also note that in areas where the Uniform Building Code is used, this specific connection is prohibited in seismic zones 3 and 4 for special moment resisting frames unless full-scale tests are performed to assure the connections performance.

The bolted moment frame connection shown in Figures 2 & 3 should follow the recommendations shown in the *Steel Tips* titled "Seismic Design of Bolted Steel Moment-Resisting Frames" by Abolhassan Astaneh-Asl, Ph.D., P.E., of the University of California-Berkeley, dated July 1995. The engineer must check all limit states to assure that a ductile mode governs in the design.

Copies of the *Steel Tips* containing Astaneh's paper can be purchased from AISC for \$5 + s/h by calling 800/644-2400.

## Correction

On page 63 of the January 1998 issue of *MSC*, we reported a survey of Structural Engineering Software. One item in this survey was erroneous: Algor SAP. Please note that there is no such product as Algor SAP. Any association between Algor SAP and any data reported therein and finite element and structural analysis software manufactured and sold by Algor, Inc., of Pittsburgh is purely erroneous.

We apologize for any inconvenience this error may have caused.