



12½ MINUTES

with AISC's Engineering & Research Department



NEW FEMA (SAC) REPORTS

Phase 2 of the SAC project funded by FEMA to resolve issues from the Northridge earthquake damage to steel moment frames is continuing. AISC, fabricators, shape producers, welding suppliers, detailers, engineers, and academics are participating and cooperating in this broadly based joint venture.

Even though completion of SAC Phase 2 is still about two years away, intermittent reports are available at no charge through FEMA. The following two new reports were issued in March, 1997 and can be obtained by calling FEMA at 800/480-2520:

FEMA 267-A, Interim Guidelines Advisory No. 1, Supplement to FEMA 267, March 1997

FEMA 268, Background Reports: Metallurgy, Fracture Mechanics, Welding, Moment Connections and Frame Systems Behavior, March 1997

The contributing authors to the latter Background Reports are Robert Dexter, John Fisher, Karl Frank, Eric Kaufmann, Helmut Krawinkler, Roberto Leon, Duane Miller, Egor Popov, and K. C. Tsai.

—Nestor Iwankiw, P.E.
Vice President, E & R

DID YOU KNOW?

A few interesting tidbits:

- The first AISC Specification was released in June 1923, and was not quite 20 pages long in its entirety! The responsible committee consisted of only 5 individuals, all academicians or practicing

engineers none of whom worked for fabricators or steel mills. Everyone can make their own comparisons with the current AISC Specification relative to the amount of information, committee size and operation. It reflects on the long bygone era that some yearn for as a simpler time...but also demonstrates the progress and new knowledge that has been, and continues to be, generated.

- The now often referenced Applied Technology Council ATC-24 report, Guidelines for Cyclic Seismic Testing of Components of Steel Structures, was published in 1992 as a result of a joint effort initiated and sponsored in the late 1980s by AISC, AISI, NCEER, and NSF. The report Preface states, "The need for the project arose from recognition that results from numerous previous laboratory experiments nationwide have been difficult to interpret and assess. Contributing to this difficulty has been variation in selected loading histories and the variation in presentation of test results."

ATC-24 has become the de facto experimental standard and has been invaluable in post Northridge research.

- During World War II steel was in short supply. In 1942, to conserve steel the War Production Board (WPB) issued temporary national emergency specifications for the design of structural steel. To conserve material, the WPB specification committee, on which AISC was represented, sanctioned the use of an allowable of 24,000 psi in tension (the AISC Specification permitted 20,000 psi), a proportionate rise in shear, but no increase in column stress. In the Spring of 1944, when it appeared

the Allies were likely to win the war in Europe, the temporary increases were removed.

—Nestor Iwankiw, P.E.
Vice President, E & R

ERECTION BRACING DESIGN GUIDE

In May, AISC published its Design Guide #10 Erection Bracing of Low-Rise Structural Steel Frames. In Part 1 of this Design Guide, engineering guidelines are provided for the detailed calculations necessary to design temporary bracing systems. The majority of low-rise steel structures fall into size and exposure categories for which more prescriptive requirements can be specified. Accordingly, in Part 2, the guidelines from Part 1 have been applied to create prescriptive design and erection requirements that can be used without detailed calculations if the structure is within the limitations assumed therein. The authors are James M. Fisher, Ph.D., P.E. and Michael A West, PE. Cost: \$30

—Charlie Carter, P.E.
Director of Manuals

FLOOR VIBRATIONS DESIGN GUIDE

In July, AISC published its Design Guide #11 Floor Vibrations Due to Human Activity (Murray et al, 1997) as a joint effort with the Canadian Institute of Steel Construction (CISC). It provides acceptance criteria for human comfort, design guidance for floors subjected to walking and rhythmic (athletic) excitations, design guidance for applications

involving sensitive equipment, and strategies for evaluation and remediation of vibration problems. The authors are Thomas M. Murray, Ph.D., P.E., David E. Allen, Ph.D., and Eric E. Ungar, Sc.D., P.E.. Cost: \$30

—Charlie Carter, P.E.
Director of Manuals

EXPANSION OF PROFESSIONAL MEMBERSHIP PROGRAM UNDERWAY

AISC Professional member committees are expected to form in up to six cities this year as part of a pilot program. "Local Professional Member committees will improve communication and exchange of information with our Professional Members, and provide opportunities for professional development and participation on structural steel issues," explained Lou Gurthet, AISC President.

The mission of these Professional Member committees will be to promote better steel design through continuous education, dissemination of information, recognition and resolution of technical issues and communication both on a local level and a national level.

Committees are expected to form later this year in Chicago, Los Angeles, Denver, Atlanta, Pittsburgh and possibly New York City. If these committees are successful, more committees will likely be formed in the following years.

In late 1996, AISC conducted a survey of the Professional Members. Nearly one-third of Professional Members returned a completed survey. Two-thirds of those respondents indicated that they would join a local AISC Professional Member committee and more than 12% of respondents said they would run for committee

office. The topics they would most like to hear about at breakfast and lunch meetings include connection design, bracing, seismic issues and economical steel details. Finally, Professional Member want to receive information about activities through newsletters and/or Modern Steel Construction.

"AISC Professional members chapters will help satisfy some of the needs our members cited in our meetings and in the survey," Kop concluded. As committees are organized, AISC will notify members in the area. For more information, contact Libby Kop at kop@aiscmail.com. Phone: 312/670-5409. Fax: 312/670-5403.

—Nestor Iwankiw, P.E.
Vice President, E & R

NSCC NEWS

The 1997 National Steel Construction Conference held here in Chicago was a great success. Attendance exceeded 1400 with many first time attendees. Attendees were able to partake in the numerous technical sessions as well as network with their peers in the steel construction industry. Subhash Goel from the University of Michigan was presented with the T.R. Higgins Award and presented his paper, "Ductile Concentrically Braced Frames for Seismic Resistance." The Saturday short course on Hollow Structural Section Connections was held on Saturday and provided an overview of the new HSS Manual to be published by AISC.

Plans are underway for the 1998 National Steel Construction Conference, which will be held in New Orleans on April 1-3, 1998. Again there will be a full day short course on Saturday April 4 following the Conference. New to the 1998 Conference will be a ½ day

short course Wednesday morning April 1 prior to the start of the Conference.

The 1999 Conference is not that far away. The 1999 Conference will be held in Toronto and will become the North American Steel Construction Conference. Abstracts for technical sessions at this conference must be submitted by September 30, 1997 to Patrick Newman, AISC, Inc., One East Wacker Dr., Suite 3100, Chicago, IL 60601, or to newman@aiscmail.com. Phone 312/670-5417, Fax 312/670-5403.

—Patrick Newman, P.E.
Dir., Tech. Info. Services

E&R DEPARTMENT STAFF NEWS

Cynthia J. Zahn returned as a full-time Senior Staff Engineer-Structures in the Engineering & Research Department on May 19, 1997. After seven years with AISC, Zahn had resigned in mid-1992 because of family obligations. In the interim, she has continued to be an independent structural consultant on various projects. Zahn's academic background includes a master of science degree in civil engineering from Cornell University.

Charles J. Carter, Senior Staff Engineer AISC headquarters, Engineering & Research Department is the Director of Manuals effective June 1, 1997. This promotion acknowledges Carter achievements in the development of AISC technical publications and his lead role in the pending work on the next Manual of Steel Construction, which is expected to be released at the turn of the century.

—Nestor Iwankiw, P.E.
Vice President, E & R