



12½ MINUTES

with AISC's Technology & Research Department

KICKOFF

Welcome to the inaugural release of *12½ Minutes*, an occasional report from AISC's Technology & Research Department. Why *12½ Minutes*? The title reflects our guess on the average attention span of a busy professional towards general news items and our recognition of this constraint.

The main purpose of these reports is to alert you—in a brief, concise form—to key structural steel design and construction developments. In addition, there will be special focus reporting, opinions, staff profiles and other “insider” news. The background provided in this report should help you immediately deal with certain project issues or to, at least, increase your awareness of technical information that either currently exists or will soon be available.

If you have any comments on anything contained in this report, please contact Patrick Newman at AISC, One East Wacker Dr., Suite 3100, Chicago, IL 60601-2001; ph: 312/670-5417; fax: 312/670-5403; email: aiscpmn@interaccess.com

--Nestor Iwankiw
Vice President, T&R

THE WORLD OF CERTIFICATION

It's been a busy year for the AISC Certification, Fabrication, Operations and Safety department.

On the top of the agenda was the creation of a new Erector Certification Program. With the assistance of Fred Haas, who acted as coordinator, AISC, the National Erectors Association and the Steel Erectors Association of America met to create the criteria and rules for this new program. An advisory committee of interested organizations is currently being polled for suggestions and comments on the program. If

everything goes according to schedule, the Erector Certification Program will be up and running early in 1997.

We also are considering creating a Detailer Certification Program. Various groups are now being surveyed as to the value of the program and their interest in the creation of such a program. In discussion is a “model” format that is much different than the existing shop program format which is part of AISC Fabrication Quality Certification. The new program would certify firms based, in part, on their use of individuals who have achieved a standardized qualification.

The existing Fabricator Certification program has two initiatives underway. First is a review and enhancement to the Sophisticated Paint Endorsement, which has been available for a year, during which time we've learned a great deal. In the past year, we've added some extremely knowledgeable experts to the committee running the program. Also, a joint communique by AISC and SSPC was prepared that explains the differences between the two organization's programs. Essentially, AISC's Paint Endorsement is for fabrication shops, while SSPC's program is for non-fabricator paint contractors.

The second initiative is a new promotion program for Fabrication Certification. A series of informative advertisements have already begun running in MSC, and a series of news releases and articles are being prepared.

--Barbara Ozouf
QC Administrator

UPDATE ON TORSIONAL ANALYSIS

Design Guide 9, *Torsional Analysis of Structural Steel Members*, will be available during the first quarter of 1997. The Guide is an update of a

previous AISC publication but has been expanded to include coverage of torsional theory, analysis and design for all structural shapes, including design examples and aids. A companion software program is being prepared and will be released late in 1997.

The authors for the Guide are Paul A. Seaburg, P.E., Ph.D., former head of the Penn State Architectural Engineering Department and co-author of the original Bethlehem Steel torsion guide, and Charles J. Carter, P.E., of the AISC T&R Department.

--Charlie Carter
Senior Staff Engineer, Structures

PROFESSIONAL MEMBERSHIP PROGRAM TO EXPAND

During the past eight months, AISC has conducted a series of five exploratory discussions with small regional groups of AISC Professional Members to identify important areas of mutual interest and to explore how to improve the AISC Professional Membership program. Also, during October a survey was mailed to all AISC Professional Members (if you're a Professional Member and didn't receive yours, or if you'd like more information on Professional Membership in AISC, please call Libby Kop at 312/670-5409 or email her at aisclk@interaccess.com).

Feedback from the regional discussions has been positive, and indications are that AISC will be proceeding with enhancements to the professional membership program. As stated in AISC's Long Range Strategic Plan, expansion of volunteer activities by the professional engineering sector on technical steel matters is envisioned for 1997 and beyond.

The initial reorganization of the Professional Membership program

(both on the national and local levels) will be further defined in the next few months as more regional discussions are held and the Professional Member surveys are returned.

We hope that in the future, AISC will accord greater opportunity for Professional Members to not just be spectators, but to be actively involved in AISC.

**--Nestor Iwankiw
Vice President, T&R**

AISCWEB: WHAT IS IT?

In March of 1996, AISC took its first step towards establishing an Internet presence by creating a home page on the World Wide Web. Since that time, AISC's web page has been greatly expanded. You can find us at: <http://www.aiscweb.com>

AISC's web site provides an extensive amount of useful information, including: a list of AISC Quality Certified Fabricators; selected articles from MSC (such as technical articles on the dogbone SMRF connection, research, and CVN toughness); an index to MSC, Steel Interchange and Engineering Journal; a calendar of upcoming AISC events, including both conferences and seminars; and membership information. Also, if you are trying to get in touch with someone at AISC, there is a complete staff directory—including a direct email link.

After you've had a chance to check out AISCweb, we'd like to hear your feedback. Please email your comments to me at:

aiscjc@interaccess.com or call me at 312/670-5430 or snail mail me at AISC to my attention.

**--Jacques Cattani
Senior Staff Engineer, Structures**

SEISMIC RESEARCH & DESIGN

A variety of research and committee work is continuing to pinpoint the sources for the unexpected brittle fractures experienced in steel moment frame connections during the 1994 Northridge Earthquake. AISC

and the steel industry are involved in both a funding and advisory capacity in several large projects sponsored by federal agencies (FEMA-SAC, NIST and NSF) at the ATLSS Center at Lehigh University, the University of Michigan, the University of Texas and the University of California-San Diego. While several issues in materials, design and fabrication remain open, the report FEMA 267, Aug. 1995 "Interim Guidelines: Evaluation, Repair, Modification and Design of Welded Steel Moment Frame Structures" summarizes much of the available information, at least for high seismicity areas. Free copies of the report may be obtained from FEMA (800/480-2520).

Currently underway is the multi-million dollar, three-year Phase 2 SAC project. A more broadly based revision of steel design criteria for seismic loads also is being undertaken by the Building Seismic Safety Council for the 1997 NEHRP and by AISC for the 1997 Seismic Provisions. The latter will be reviewed by the AISC Committee on Specification. Major changes in steel moment frame detailing will be implemented to deal with reinforced and reduced beam section connections, expected material strength, welding, and differences in regional seismic risk. At this time, it is expected that both the BSSC and AISC documents will be released in mid-1997 and will have essentially similar design requirements for structural steel.

**--Nestor Iwankiw
Vice President, T&R**

SEARCH FOR QUESTIONS

Did you know that the Steel Quiz in each month's issue of MSC is prepared by Charlie Carter? Unfortunately, he's rapidly exhausting his reservoir of material. So if you have any suggestions for Steel Quiz questions (and answers), please send them in to: Charlie Carter, AISC, One East Wacker Dr., Suite 3100, Chicago, IL 60601, fax: 312/670-5403, ph: 312/670-5414.

Along a similar vein, Patrick Newman is always searching for questions and answers for Steel Interchange.

NSCC NEWS

The 1997 National Steel Construction Conference will soon be here—the 1997 show is scheduled for May 7-9 at the Chicago Sheraton Hotel in downtown Chicago.

The Conference is growing every year and this year, in addition to tracks on engineering-technical, engineering-management, fabrication, and erection, we've added a welding track. As always, attendees are not limited to sessions in one track, but instead are encouraged to cross from one to another.

Planning is also underway for the 1998 Conference, so if you have any ideas or suggestions, please forward them to Patrick Newman at AISC, One East Wacker Dr., Suite 3100, Chicago, IL 60601 or email him at aiscpmn@interaccess.com

**--Patrick M. Newman
Dir., Tech. Information Services**

UPCOMING SPEC COMMITTEE MEETING

The AISC Committee on Specifications will meet November 22 with task committee meetings on November 20-21. The meetings will be held at the Holiday Inn Merchandise Mart in downtown Chicago.

The meeting is held annually to examine any changes that need to be made in the various AISC specifications and to consider new recommendations. Included will be the AISC Seismic Provisions, a new specification on hollow structural sections (HSS) and the main LRFD Specification for Structural Steel Buildings.

A full report on the meeting will be in the next 12½ Minutes.

For more information on AISC's Technology & Research Department, check out AISC's home page at <http://www.aiscweb.com>