

CERTIFIED AND STANDARDIZED: A One-Two Punch for Erectors

AISC's erector certification program is evolving as erectors continue their quest to knock out safety and quality issues.

BY ALAN T. SHEPPARD, P.E.

IT GOES WITHOUT SAYING, BUT QUALITY AND SAFETY ARE TWO OF THE MOST IMPORTANT FACTORS IN ANY STEEL PROJECT—ESPECIALLY WHEN IT COMES TO ERECTION. So when both are called into question, people take notice.

And this is just what happened in the mid-1990s. The results of the investigation into structural failures caused by the 1994 Northridge, Calif. earthquake, fairly or not, impugned the quality of erectors nationwide. At the time, the Steel Erection Negotiated Rule-making Advisory Committee (SENRAC), established by the U.S. Department of Labor, was in the process of writing new regulatory standards for steel erection. However, the version of 29CFR1926, Subpart R, Steel Erection (the OSHA standard for steel erection) that was extant at the time had largely been superseded in practice by case law. Unfortunately, the case law differed from one jurisdiction to another, and this confusion made the safety efforts of steel erectors appear weak.

Taking the Initiative

AISC became concerned that if no industry organization came forward to establish certain levels of quality and safety for steel erectors, the federal government would. No one in the industry wanted this to happen. AISC's solution was to establish an erector certification program similar to their fabricator certification program, which had been in place for 30 years.

In late 1994, AISC met with the National Erectors Association (now called The Association of Union Constructors—TAUC), and both organizations agreed that an Erector Certification Task Group would be formed to design the erector certification program. Shortly after this meeting, AISC invited the Steel Erectors Association of America (SEAA) to join this task group, and representatives from all three entities met several times over a period of eighteen months.

Since the fabricator certification program was based on a checklist system, the task group chose this same format for the erector program and developed three checklists each for two categories: Certified Steel Erector and Advanced Certified Steel Erector. The checklists were for Application, Management, and Operations, and the program would be administered by Quality Management Company, LLC (QMC), who would perform the auditing for AISC. The program was up and running by 1997.

A Slow Start

Acceptance of and participation in the program was slow at first. It was a typical chicken-and-the-egg scenario: Specifiers didn't want to require certification, because there weren't enough certified erectors in a given area to satisfy engineers' comfort level with competitive bidding; likewise, erectors didn't want to become certified, because not enough engineers were requiring it.

Of course, this mentality continues to exist today in some areas. The rule of thumb for a geographical area seems to be that there should be at least three certified erectors in order to obtain competitive balance. However, it becomes a question of who wants to be the first to take the plunge.

Another continuing issue with the program is the perception of Certified Steel Erector vs. Advanced Certified Steel Erector. The decision to create two different certification levels was to differentiate the character of the work performed by an erector, not to say that one was better than another. Unfortunately, some engineers believed—and still believe—that “Advanced” means “better.” Also, the program initially only covered erection of structural steel as defined by the *Code of Standard Practice*, which excluded the erection of miscellaneous iron. (However, for certain projects, the erection of very large pieces has since been added into the specifications as “miscellaneous.”)

Yet another issue was that joists were not included in the original program. This caused problems in scheduling audits, because some erectors had joist jobs but not structural jobs. It was a similar situation for “erectors” who were really more vested in the general contractor role and who didn't always have structural jobs to audit. Also, erectors with multiple offices presented an auditing problem, because it was often difficult to determine where in the company operations control existed.

In addition, while the checklists serve their purpose—providing a business model—they can be daunting to an erector seeking certification, as they are in a yes/no, “Do I have it or not?” format, and there is nothing in the checklist that tells an erector what the content of a requirement should be. Because of all these issues, it was clear that the erector certification program needed more flexibility.

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Taking It to a New Level

So what was the solution? AISC, which created a building standard for fabricators, determined that a standard for erectors would be beneficial as well. As such, it has gathered another group of volunteers from AISC, TAUC, and SEAA. This task group was formed in 2006 and is currently hard at work developing an erection standard based on the existing certification program.

The challenges for the new task group are two-fold. First, it must create a document that explains the why and what rather than simply posing yes/no questions. The second challenge is to solve the problems from the original erector certification program.

The basic business model provided by the AISC erector certification program checklists will provide the foundation for the new standard. The basic requirements will not be changed, and a strong emphasis on quality, safety, and planning will remain in place. There will be more flexibility with renewal requirements, joist will be included, and there will be only one category as opposed to two. In addition, the task group is doing its best to make the transition as transparent as possible. Bottom line, if you are already certified, you should notice very little difference in your preparation for a renewal audit. If you are not certified, you will find the standard easier to understand, and putting together the application submittal package will be easier. In general, the updated program will be easier for everyone to understand.

The task group hopes to have the new erection standard ready for use by early 2008. This will not be a stagnant program. The *Certification Standard for Steel Building Structures* was recently updated based on comments from fabricators who became certified to the original 2002 edition of the standard, and we expect that this will happen with the erector standard as well. Revisions to the standard will come out every five years or sooner. Changes in technology will drive many of the revisions, as will usefulness in the field.

A Positive Step

Like any other process, the Erector Certification Program has been a learning process, but has also become a positive step for the industry. It provides the erector with a good business model that emphasizes quality, safety, and planning. A certified erector can honestly give a positive response to three basic questions: Do I maintain consistency with every job? Do I do perform

every job properly? And if my projects are performed correctly and with consistency, can I prove it—especially to engineers? If you are on the fence about certification and would be the first in your area to become certified, think of it this way: “If you are not the lead dog, your view never changes.”

There is an old saying that poor specifications cause poor construction. AISC expects that certified erectors will overcome poor specifications by using well-trained workers and adhering to industry standards. Ideally, AISC wants erectors to be more knowledgeable about steel erection than the inspector, engineer of record, and owner. They want every employee of a certified steel erector to be trained and educated, as well as know what to do, how to do it, and why they are doing it. This is a tall order, but the new erection standard will help erectors reach new and higher levels of competency. MSC

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