

Don't Fear the Auditor

BY GEOFF WEISENBERGER

When it comes to AISC Certification audits, it's a matter of providing the proof in the pudding (and paperwork) and engaging in an open dialogue with the auditor—who, by the way, is there to help.

TYPICALLY, "AUDIT" is thought of as a four-letter word, often eliciting groans, feelings of dread and even the urge to lock the doors.

But don't worry. When the auditor arrives, it's nothing like Darth Vader's first appearance in *Star Wars*—at least, not in terms of AISC Certification audits.

So just what is an AISC Certification audit? To become (and stay) certified, a fabricator or erector must undergo an annual audit of its own quality management system (QMS)—a standardized and documented set of procedures. There are many facets to the process, including quality verification of a shop or erection company's operational procedures, equipment, training, management and personnel.

Why become certified in the first place? Certification acts as a statement to owners, engineers and the construction industry that a shop's quality is "built in." An AISC certified company, by implementing a comprehensive QMS, can reduce production and construction errors and increase overall quality.

And the construction industry recognizes it. "We get a lot of calls asking if we're AISC certified," says Bill Dowd, owner of Great Denver Iron (GDI), a fabricator in the Mile High City.

Open Dialogue

For AISC certified fabricators and erectors, audits serve as a relaxed and open dialogue and an opportunity for improvement—not being nicked and dimed for every little "offense" but rather a conversation geared toward keeping the ship on course. There's no way every nook and cranny of a shop can be covered by one auditor in one day, or even two. Much like material testing, it's more of a sampling or a survey.

"If you do what your quality manual says, you don't dread audits; you welcome them," says Edward Harmond, an auditor (who

happens to be a former Air Force drill instructor). "It's more a matter of making sure there's a reasonable process in place and that it's being followed."

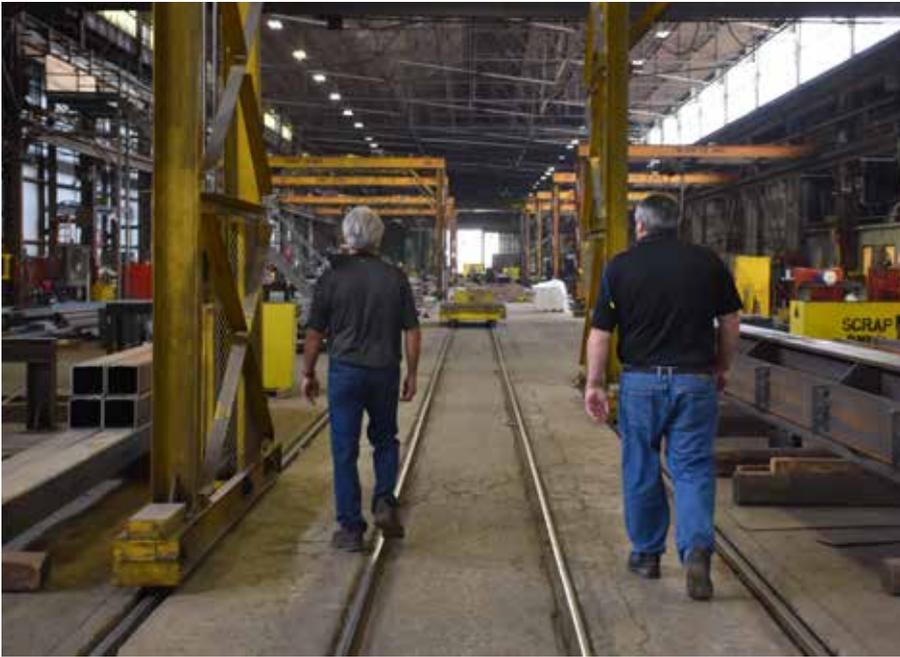
It's also like a checkup at the doctor's office. If you're fine, you get a clean bill of health. If you've got an ailment, they're there to give you what you need to get better—very much a "help me help you" mentality.

"I'm not here to nitpick," says auditor Terry McMillian, who was previously a steel fabricator for three decades. "And I'm not necessarily looking for something to write a corrective action request (CAR) on. If you deserve one, you get one. What's important to me is that I am able to bring something of value to the process. If I can make you better tomorrow than you were today, then I consider it a successful audit."

A Tale of Two Audits

I witnessed the collaborative nature of audits firsthand after recently visiting two AISC certified (and member) fabricators during audits. The first one took place at GDI, which has fewer than 15 employees, with Harmond as the auditor. It's the kind of small, family-owned business where you might expect to be greeted by a dog. (And I was. Her name is Sophie, and she's a boxer-lab mix.) The second, performed by McMillian, was at W&W|AFCO Steel in Oklahoma City, which employs around 270 in more than a half-million sq. ft of space. But while the difference in scale between the two companies is significant, the commitment to quality is the same.

The overarching role of an audit is to verify that a company has its own QMS and is following it. The idea is that if you leave tomorrow, you need to have documentation for the next person—which, really, is a good lesson for any business. As Dowd explains it, the long-term certification process is a journey. "You



A walk through W&W's Oklahoma City facility.



Calibrating measuring tapes is part of GDI's process.



GDI's paint bay.



Talking with paint shop personnel at W&W.



An important reminder for employees at W&W.



Looking at calibration reports at W&W.

learn a lot about yourself," he says. "And during our first four years of being certified, we had a lot to learn. But then we became more streamlined. Things don't change as much now, but that's because they don't need to."

AISC Certification audits take place on a three-year cycle. A full audit takes place every three years, with two continuation audits in between. Core items are covered every year, while random items are covered every other year.

"You don't audit every element every year," explains McMillian. "All elements are audited during full, two-day audits, but there are some elements audited every year, and other elements audited during the yearly continual certification cycle." He also notes that the same auditor can audit a facility two years in a row but then has to wait a few years before coming back to that shop.

"I've been doing this for 26 years, and it's always fun to meet new auditors from different parts of country and learn from them," relates Reza Jowkari, W&W's QA/QC manager, who served as our tour guide through the facility.



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Both audits began with a rundown of the process and expectations for the day. From there, the auditors spent time going through the company's QMS, looking for items such as calibration procedures, welding, detailing, traceability and purchasing procedures. For example, W&W's process states that all welding machines are calibrated every 90 days, and part of the audit process was providing documentation that this work is indeed being done. The audits also included a discussion of the shop's management review process, which is meant to confirm that the company is properly communicating its own certification requirements and procedures to its staff. Both shops also provided documentation of sample jobs currently in the shop and how the various processes that brought them together adhered to their QMS.

While looking through procedures and following the paper trail for evidence is a major component of an audit, walking through the facility and interviewing employees is equally important. The walk-through is very much a tour, giving the auditor a sense of the facility's scope (office, production floor and other areas) and equipment, how it's laid out and compartmentalized and an overall feel for its workflow. For McMillian, it was also somewhat of a trip down memory lane (given his history in the business) with lots of amusing recollections and anecdotes about various equipment types and procedures.

Both auditors spent time in the office and on the shop floor chatting with employees about their jobs and having them demonstrate their knowledge of their company's procedures for their particular areas. At W&W, McMillian had conversations with a welder, painter and maintenance personnel—the latter of which provided maintenance records for various shop equipment. He also spoke with the company's welding engineer, who provided welder certificates along with current welding procedure specifications.

At GDI, one employee Harmond interviewed was named Luis Portugal, who walked him through the company's traceability methods and demonstrated the purchase order process. "At a lot of

companies, there are five business cards for what Luis does," says Dowd. Harmond also interviewed an employee named Marj Oliver, who serves as GDI's QA manager and certified welding inspector, asking several questions about the welding procedures at the shop. In addition, part of GDI's audit required a shop employee to perform a Skidmore test to demonstrate that they know how to accurately do it and that the equipment is calibrated and running properly.

Staying on Track

It should be noted that both audits took place before June 1. Why is this significant? Because this is the date that AISC's "harmonized standard" went into effect. (For more on AISC's new Certification standard and requirements, see the sidebar "Harmonized Certification" on the following page.)

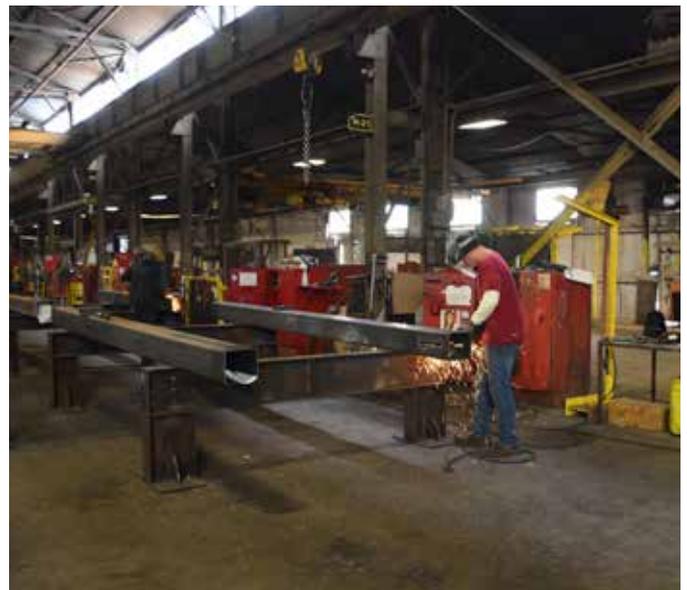
At the end of the audit, findings are categorized into four categories: strengths, opportunities for improvement, areas of concern and CARs. Strengths are just that, and the auditor notes what makes the company successful. Opportunities for improvement might be something simple like clarifying language for a particular procedure and may include suggestions for improving a process based on the auditor's knowledge and experience. Areas of concern must be addressed by the following audit year. If this doesn't happen, they become CARs, nonconformities that need to be addressed in a timely manner.

But again, part of the auditor's job, if they observe nonconformities, is to point people to resources on how to resolve them. Remember: The overall goal of audits—and Certification as a whole—is not to punish companies for nonconformities but rather to keep the train on the tracks. Doing so raises the bar for the structural steel industry in terms of producing a quality product, which in turn raises the profile of steel in the eyes of designers, contractors and owners and increases the opportunities for steel construction.

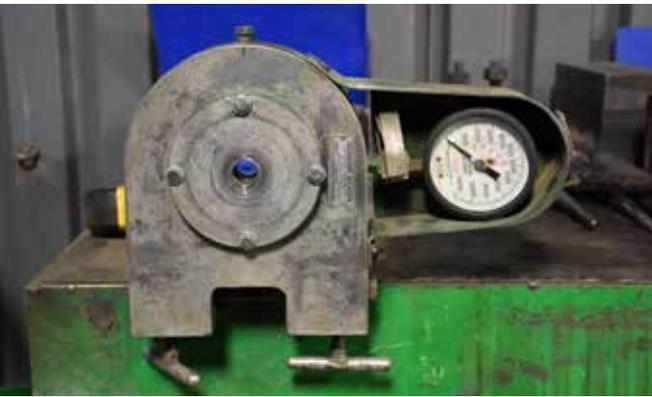
"In the end, having a good product is one thing," notes Dowd. "But doing everything the right way helps a lot." ■



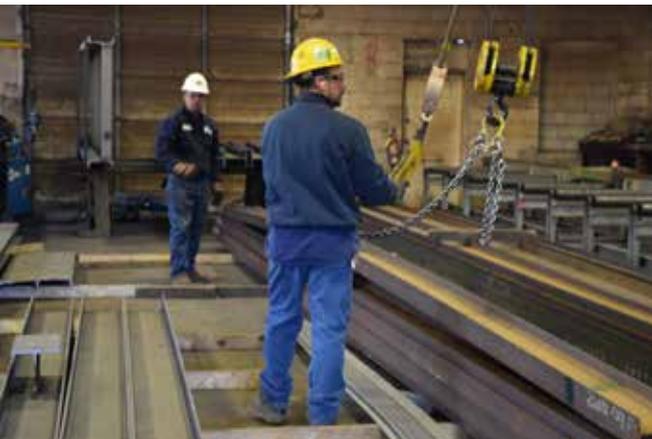
Discussing welding procedures at GDI.



Grinding at W&W.



Demonstrating the Skidmore test at GDI.



GDI's shop floor.



Sophie is an unofficial employee at GDI.



Demonstrating coating inspection equipment at GDI.

Harmonized Certification

AISC's Certification program has evolved quite a bit since its inception in the mid-1970s, when it was a checklist system that auditors used for evaluation and to document a company's commitment to quality. In 2003, checklist-based programs started being replaced with standards-based programs, requiring companies to have written procedures, quality goals and management's commitment to quality.

Because additional certification programs were introduced over time, inconsistencies in language and format made the multiple standards unnecessarily confusing to administer and specify. To remedy the confusion, the Certification Standards Committee developed a new "harmonized" standard. This new single document, Standard for Steel Fabrication and Erection, and Manufacturing of Metal Components (AISC 207-16), was released last December and will replace all previous individual program standards.

"The significance of the harmonized standard lies in Section One," says Michael A. West, PE, a principal with Computerized Structural Design and chair of AISC's Certification Standards Committee. "The provisions in it are common to all four industry segments. Because the previous four separate standards were developed over time, minor differences in terminology and requirements have been discovered in the documents. The common requirements in Section One correct this situation and leave any differences among industry segment requirements to their four unique industry sections."

Prior to the new harmonized standard, each standard was administered through its own individual program requirements document. With the release of the new Program Requirements for Fabricator, Erector and Manufacturer Certifications, there is now a single set of requirements. Similar to the new standard, general requirements for all certified companies are being consolidated into one document, and each program has a tailored set of supplemental requirements.

This timeline provides a glance at the various milestones in the transition from the previous certification criteria to the new program requirements.

- **December 15, 2017:** Standard for Steel Fabrication and Erection, and Manufacturing of Metal Components (AISC 207-16) published
- **February 7, 2018:** Program Requirements for Fabricator, Erector and Manufacturer Certifications released for public comment
- **March 30, 2018:** New Program Requirements for Fabricator, Erector and Manufacturer Certifications published
- **April 11, 2018:** NASCC Sessions on new requirements and their rollout
- **May 1, 2018:** Fabricator and erector applicants to meet the new requirements
- **June 1, 2018:** Certified fabricators to meet new requirements and standard, certified erectors to meet the new requirements
- **June 1, 2019:** Certified erectors to meet the new standard
- **June 1, 2020:** Program Requirements transition complete

And to see sessions related to the Certification program's conversion from this year's NASCC, visit www.aisc.org/2018nasconline. The sessions are as follows:

- Q1: Certification Is More Than Just a Standard
- Q2: The New Certification Program Requirements and Standard: What Do They Mean for You?
- Q3: The New Certification Requirements and Standard: Additional Update for Bridge and Hydraulic Fabricators
- Q4: The New Certification Requirements and Standard: Additional Update for Building Fabricators and Component Manufacturers

—Todd Alwood
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