

We're Still Learning!

Two years into the *Certification Standard for Steel Building Structures*, we're still learning a lot about quality certification in the "real" world.

BY DAN KAUFMAN

ANOTHER YEAR OF AUDITING FABRICATORS TO AISC'S CERTIFICATION STANDARD FOR STEEL BUILDING STRUCTURES (THE BUILDING STANDARD) HAS PASSED. Last year when we examined the top corrective action requests (CARs), the big question was "What have we learned?" This year it's more like a statement: "We are still learning!"

To keep the analysis of the AISC Certification audit CAR statistics as simple as possible, we're going to look at some basic questions: What happens most often? What is the next-most frequent occurrence and how does that compare to last year? The analysis will follow last year's format, showing the top challenges facing fabricators and providing a brief explanation of how they made the list.

2006 Overview

What does the comparison of 2005 to 2006 (Figure 1) tell us? It tells us that management and detailing CARs were cut significantly. Fabricators deserve a big pat on the back for that! We hoped that fabricators would become more familiar with the *Building Standard*, and they did. In fact, almost all of the *Building Standard's* elements showed improved compliance, with one exception: process control. Why is that?

Within the process control element (Figure 2), maintenance generated fewer CARs in 2006 than in 2005, but welding and bolting generated more. Most of the welding CARs in 2006 were for inadequate records of welding personnel qualifications, followed

by the handling of welding consumables such as welding rods. In the case of bolting, reviewing the most frequent cause of CARs highlighted unacceptable bolt storage: fabricators have many ways to store high-strength bolts, and many don't protect the bolts like they should—or at least they didn't in 2006. We do expect this to improve this year due to the "training effect" of the audits.

Do these process control transgressions have anything in common? Yes! When any of these items are not conducted properly, there is no immediate impact to the operation of the shop. For example, not having the proper paperwork for a welder doesn't cause him or her to start welding badly, but assigning a body to handle the paperwork can take time away from expediting a job. Likewise, having buckets of dirty bolts sitting in the shop doesn't slow down the operation. However, if you take somebody off their regular job to sort dirty bolts, now you affect the operation.

All of these items have been shown to adversely affect quality—or at least make a statement about the shop's willingness to sweat the details. The next time you see a new regulation or a tightened standard come your way, consider that it may have been prompted or justified by a similar situation that got a little bit out of hand. Those tightened regulations may be designed to ensure that unmotivated participants get in line. Before you reach for the phone to complain, you might want to take a minute to go back in your shop and see if you're living in a glass house.

Management and detailing CARs (Figures 3 and 4), while greatly reduced, are still in the most-frequent category. Can there

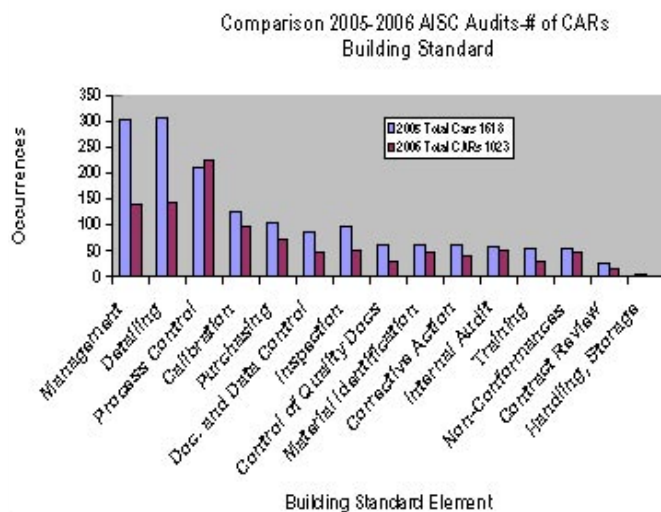


Figure 1. Element CARs by year.

Fabricators: Fear Not!

The 2006 *Building Standard*, which became effective May 1, 2007, is only an update! It includes criteria from the applicable auditing policies, auditing lessons learned, and language clarifications that make it more user-friendly. It is **not** a revision with new requirements.

Marketing efforts by consultants may have caused fabricators to be concerned about the 2006 *Building Standard* and the audit process. If you have questions, refer to the free "Guide to the 2006 Building Standard" now available on the AISC website at www.aisc.org/2006guide. This guide shows what and where the updates were made.

You can be confident that the QMC auditing process will be performance-based and remain consistent. Please call 312.670.7520 or e-mail certinfo@qmconline.com at any time if you have questions regarding your audit.

—Pat Thomashefsky, Lead Auditor, QMC

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**2005-2006 Comparison
Process Control CARs**

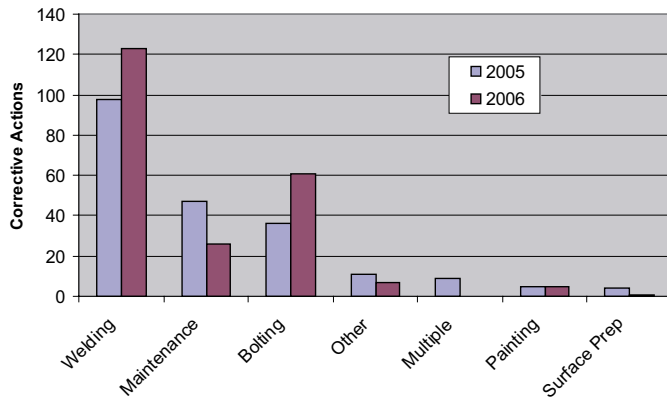


Figure 2. Process Control CARs.

**2005-2006 Comparison
Management CARs**

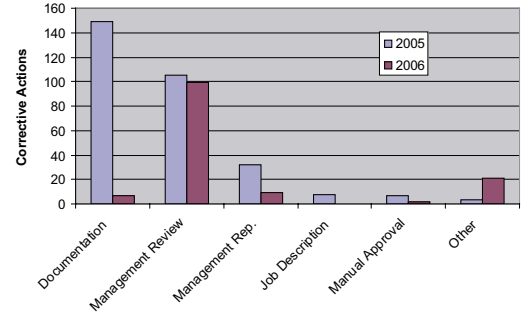


Figure 3. Management CARs.

**2005-2006 Comparison
Detailing CARs**

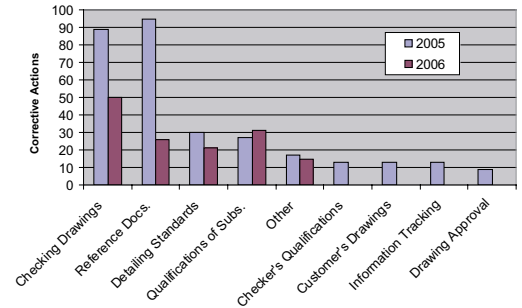


Figure 4. Detailing CARs.

be even more improvement? Of course! While management doesn't appear to be documenting quality goals as expected, I know fabricators are tracking the quality of jobs. Chargebacks and complaints cost money, and I haven't seen a fabricator yet who isn't tracking money. The point is that fabricators know if the customers are complaining or asking for money back. If it doesn't happen very often, it should be easy to document. If it happens a lot, then they might consider spending some effort on it anyway. For AISC Certification purposes, the requirement is simply that fabricators have something on paper, showing that they are aware of how well they are meeting customer requirements.

Checking drawings has improved significantly—another well-deserved pat on the back! However, it's still the number one detailing CAR. What we've seen is that subcontract detailers may be reluctant to reveal the identity of their checkers because, in some cases, they have had good people hired away from them. If that is a concern, they can assign a code to their checkers, and then supply you with a sheet showing the qualifications of the checkers using the codes. As auditors, we don't care if a checker is Bill Smith or 323, as long as the drawing gets checked and you can show us the qualification of checker 323.

Summary

The bottom line is, it's been a year of improvement, and AISC Certified Fabricators are to be congratulated! The table below shows a wrap-up of the top 10 elements generating CARs, the two-year trend, and some possible solutions. While the data collected is useful to the auditing process, it isn't the star of the show. The fabricators who are making progress—and showing off their quality systems to specifiers—are the real stars.

MSC

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Top Ten Corrective Actions

RANK	# CARs	ELEMENT	TREND	RECOMMENDED FOLLOW-UP
1	123	Welding	Worse	Welder certification documentation; consumable handling.
2	99	Management Review/Goals	Slight Improvement	Make documentation of your Quality System Goals as complex or as simple as you want, just document the goals and results.
3	96	Calibration	Improved	Use certified tapes to check weld gages and squares.
4	61	Bolting	Worse	Bolt storage cleanliness.
5	50	Checking Drawings	Improved	Use coding for checker identification.
6	50	Internal Audit	Slight Improvement	This is a critical piece of the Quality system. Take it seriously and use the feedback.
7	47	Material Identification	Improved	The <i>Code of Standard Practice</i> spells out simple identification requirements.
8	45	Non-Conformances	No Change	Define where the trigger levels are for your system, so you don't have too many—or too few—nonconformances. Zero is too few.
9	41	Corrective Actions	Improved	A "corrective action" is not repairing a defect. A corrective action is finding a solution to a repeated problem or a big issue.
10	31	Evaluation of Subcontractors	No Change	Finding that your supplier made a mistake does not mean you have to disqualify them. Can you help them improve?