

Getting the Most from Certification

BY RUSS PANICO

AISC Certification gives fabricators a foundation for building problem-prevention strategies.

AISC CERTIFICATION IS A NATIONALLY AND INTERNATIONALLY RECOGNIZED PROGRAM whose development has followed the format of the ISO Program. AISC Certification requirements are steel-specific, focusing on fitting, welding, bolting, and coating issues, among other things; the program takes aim only at those specific areas that engineers and builders care about. It provides a process for not only improving the manufacturing and material-handling activities, but also improving engineering, sales, purchasing, and management.

Components of AISC's *Standard for Steel Building Structures* that can be directly applied to prevent rework and errors include:

Fabrication

A fabricator is required to provide a comprehensive and effective calibration system. Although this calibration system is not a very visible benefit, calibrated equipment (including welding machines) is critical to accurate fabrication. Bolting methods will be reviewed for completeness and accuracy during the audit. With a review of written procedure and application, fabricators are confident that their connections are sound and consistently made. Fracture-critical welding programs will receive a complete review. The very definition of fracture-critical demands accurate and thorough compliance. Our shop's fracture-critical program was built using the AISC Certification criteria as a resource. Why reinvent the wheel when you don't have to?

Materials

Materials are fundamental to the fabrication process. Steel plate, welding consumables, paint, and many other material components must be controlled and stored properly in order to prevent material-related issues from reaching the jobsite. Traceability can also be critical, depending on the type of project. The Certification program addresses how a fabricator will handle and store material, along with how they will control non-conforming material. These measures are required in order to prevent problems of traceability and confusion.

Documentation

Meeting AISC Certification requirements helps develop a robust quality system. AISC Certified fabricators will have a great deal more documentation control for consistency and trainability of their staff. Providing objective evidence of what you've done in your shop can prove significant when someone asks to see it. How do you train? What do you train with? Using documented procedures as train-

ing material can help keep your training programs consistent. An AISC Certified fabricator can easily provide answers to the above questions.

Contract Review

AISC Certification supports a quality management system that ensures customer requirements are fully defined prior to accepting an order. The program also enables fabricators to ensure that procedures are in place to resolve discrepancies between customer requirements and fabricator capabilities. If conflicts can be resolved early in the bid process, there is less chance of confusion regarding the fabricator's responsibilities. We have found that using systems that review and address customer requirements has significantly improved the internal communication among our sales, engineering, and manufacturing departments.

Supporting Project Design

Certification improves the consistency of the instructions we provide to manufacturing. It accomplishes this by ensuring that an effective review system is in place to support project design and prevent design errors. Certification criteria provide detailed feedback through the "request for information" (RFI) process to question and resolve design issues. Whether the Fabricator details jobs themselves or sublets detailing, the *Standard* addresses qualification and accuracy of the detailing. It will also help you set up a method for qualifying and maintaining sublet detailers.

Vendors

AISC Certification criteria reinforce the importance of accuracy when communicating material requirements to your vendors, and also allow the fabricator to communicate more effectively. The program can help initiate formal actions that are meant to improve your vendors' level of service. In our company, non-conformance reports let us track and categorize mill errors to provide strong and accurate feedback.

Management

There are many benefits to a fabricator's quality management system, such as the management review. A review meeting, which must be held on a regular basis, gives the fabricator's management team the opportunity to review the overall effectiveness of the quality system. Problems and needs are discussed at the highest

level, and these meetings provide our quality department with improved visibility to the management team.

Company-wide corrective action requests (CARs) are established to document problems, their root causes, and what measures are taken to prevent these problems from occurring again. As an example, our own CAR system is a valuable tool for preventing rework issues. Personally, our system has helped me to better organize and follow up with recurring problems and errors.

A comprehensive training system, including the development of standard work processes for consistency and improved quality, has been developed in response to the AISC Certification requirements. Consistent training, along with established written procedures, provides the antidote to many of our problems.

The AISC Certification criteria also focus on internal auditing. There is an old saying, "You get what you inspect, not what you expect," which certainly applies in this situation. The fabricator checks himself in all areas of the program criteria at least once per year. This enables the fabricator to find and self-correct any problems that are discovered in the self-audit. In our company, self audits have disclosed many areas for improvement, including calibration and documentation issues.

Goals

Setting goals is one of the most unique and valuable components of the AISC Certification program. The fabricator sets his own goals for improvement, but it is actually the progress towards achieving these goals that is audited. This concept is a real driver toward continuous improvement. Once initial goals are met, new ones are established and the cycle of improvement continues. Our company has specifically set goals to reduce paint rework and weld rejects. With the support of management, we have made real, quantifiable progress in both areas.

Overall Communications

The *Building Standard* has provided a framework to help improve communication between owners, designers, and fabricators:

- ➔ A more thorough and consistent review of drawings and specifications brings problems to light sooner in the bidding process
- ➔ Consistent, organized RFIs track and resolve design and other issues
- ➔ Standardized documentation of corrective actions, preventive actions, (CPARs), travelers, and other reports provides objective evidence of meeting requirements

- ➔ Standardized fabrication procedures
- ➔ Standardized repair procedures

For owners, contractors, and fabricators, AISC Certification focuses on smooth contract fulfillment. By establishing and maintaining communications between all parties, the *Building Standard's* framework enables the fabricator to prevent design and material issues, among others, which could hinder fabrication. AISC Certification shifts the focus to the customer. A strong, consistent quality system emphasizes the importance and effectiveness of problem prevention and improves the way the business operates.

Quality Management Company's auditors work with your company to improve your quality management system. The focus of these audits has changed from passing inspections to developing a customer-driven, process-based quality system. With management leadership and defined goals, your company can increase productivity like ours has. **MSC**

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