



CERTIFICATION PROGRAMS

Supplemental Requirements for Structural Steel Erectors (CSE)

Preface

The 2019 revision is not a complete revision of the *Supplemental Requirements for Structural Steel Erectors (CSE)*. The following changes have been made in this revision:

Preface - New Section Added

Section 1 Before the Site Audit

- SE1.1 - Editorial
- SE1.10 - Revised

Section 2 During the Site Audit

- SE2.5 - Revised
- SE2.6 - Revised

Section 5 Bridge Erection Endorsement

- SE5.5 - Revised

Commentary - New Section Added

Scope

This document (hereinafter referred to as *Supplements*) provides the additional requirements for the AISC Certification Program for Structural Steel Erectors (CSE) (hereinafter referred to as the *Program*).

Section 1 Before the Site Audit

- SE1.1 All Participants/Applicants are required to have available and comply with these *Supplements* and the *Governing Requirements for Certification Programs* (hereinafter referred to as *Requirements*).
- SE1.2 This *Program* uses the *AISC Certification Standard for Steel Fabrication and Erection, and Manufacturing of Metal Components—2016* (hereinafter referred to as *Standard*) as the normative document. Whenever there is a conflict between the *Supplements* and the *Standard*, the *Supplements* govern.
- SE1.3 Along with full payment of fees, Participants must annually submit a current Certificate of Liability Insurance naming the American Institute of Steel Construction LLC and Quality Management Company LLC as additional entities covered by the insurance, and they must submit a Reciprocal Indemnity Agreement every three years. A sample Certificate of Liability Insurance form and the Reciprocal Indemnity Agreement can be found on the “Certified Erectors” web page at www.aisc.org/certification; click “Document Submittals” for the documents.



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- SE1.4 *Standard* Section 3.2, 3.3 and 3.4 are not included in the Certified Steel Erector Program. These Sections/Elements apply to the specific endorsement.
- SE1.5 Participants/Applicants of this *Program* are eligible to apply for the following endorsements:
- Seismic Erection Endorsement (see Section 3 below and *Standard* Section 3.2)
 - Metal Deck Installation Endorsement (see Section 4 below and *Standard* Section 3.3)
 - Bridge Erection (see Section 5 below and *Standard* Section 3.4)
- To include/add any or all of these endorsements, refer to the *Requirements* Section 2, “Applying for Certification,” or Section 8, “Making Changes to the Certification Scope.”
- SE1.6 As used in these *Requirements* and in the *Standard*, the words **shall**, **must** or **will** denote a mandatory requirement. The words **should**, **could** or **might** denote a guideline or recommendation. The words **can** or **may** denote an opportunity to make a choice.
- SE1.7 *Standard* Section 10.4: Customer supplied materials needs to only be verified against the receiving documents. Verification to contract documents is the customer’s responsibility.
- SE1.8 *Standard* Section 20.1.3: The safety plan shall include a list of all hazardous materials brought to the site by the erector with an applicable Safety Data Sheet (SDS). The safety plan shall also include where all site hazardous material SDSs can be reviewed.
- SE1.9 *Standard* Section 20.1.3: The project safety plan may be combined with the erection plan regardless of the format used for the erection plan.
- SE1.10 Participants/Applicants are required to have an active jobsite as required by SE2.5.

Section 2 During the Site Audit

- SE2.1 Participants/Applicants will be audited and evaluated to ensure compliance with the current AWS D1.1/D1.1M, *Structural Welding Code—Steel*, regardless of whether this is required by the sampled contracts and specifications.
- SE2.2 Participants/Applicants must perform a bolting method demonstration at each site audit. The demonstration shall comply with the current RCSC *Specification for Structural Joints Using High Strength Bolts* Section 7, “Pre-Installation Verification.”
- SE2.3 Participants/Applicants must demonstrate that their Quality Control Inspector(s) (QCI) is qualified per the current ANSI/AISC 360, *Specification for Structural Steel Buildings* Section N4. These qualifications must be stated by the *Participant* in their quality management system, including experience and training requirements.
- SE2.4 When required, the Certified Welding Inspector (CWI) may be an employee of the Participant/Applicant or contracted. In the case of the latter, contract status and qualifications of the CWI must be demonstrable.



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SE2.5 Participants/Applicants are required to have an active job site in the United States and must comply with the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). At the time of the site audit, such compliance can be used to demonstrate the ability to meet these *Requirements*. This includes work described in the *AISC Code of Standard Practice for Steel Buildings and Bridges* Clause 2.1 or work of equivalent complexity as determined by the auditor.

An active job site is where the minimum following activities are occurring during the site audit:

- Connecting of steel elements via welding and/or bolting
- QCI inspections occurring and documented
- Execution of site-specific quality and safety plan
- Material handling

SE2.6 Participants who do not have an active job site are required to have one within 60 days from the date of the expiration of their certificate or their certification will be withdrawn from the program.

Section 3 Seismic Erection Endorsement

SE3.1 Participants/Applicants shall develop documented procedure(s) for the erection of seismic elements of the structural frame per *Standard* Section 12.

SE3.2 Participants/Applicants shall have available the current edition, in English, and demonstrate their ability to work to, and meet, the requirements of the following normative documents:

- ANSII/AISC 341, *Seismic Provisions for Structural Steel Buildings*
- ANSII/AISC 358, *Prequalified Connections for Special and Intermediate Steel Moment Frames for Seismic Applications*
- AWS D1.8/D1.8M, *Structural Welding Code—Seismic Supplement*

SE3.2 If an active job site with seismic connections is not available at the time of the site audit, mock exercises shall be used to demonstrate capabilities unless records are available for a seismic connection project completed within the past two years.

SE3.4 Participants/Applicants shall maintain the following documents for Demand Critical welds in compliance with AWS D1.8/D1.8M, *Structural Welding Code—Seismic Supplement*, and have them available for review during each site audit:

1. One representative Welding Procedure Specification (WPS)
2. Supporting Procedure Qualification Record (PQR)
3. Welder Performance Qualification Record (WPQR) maintained current and qualified with records of period of effectiveness



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Section 4 Metal Deck Installation Endorsement

- SE4.1 Participants/Applicants shall develop documented procedure(s) for metal deck installation per *Standard* Section 12.
- SE4.2 Participants/Applicants shall have available the current edition, in English, and demonstrate their ability to work to, and meet, the requirements of the following normative documents:
- ANSI/SDI QA/QC, *Standard for Quality Control and Quality Assurance for Installation of Steel Deck*
 - SDI COSP, *Code of Standard Practice*
 - AWS D1.3/D1.3M, *Structural Welding Code—Sheet Steel*
- SE4.3 Participants/Applicants shall maintain the following documents in compliance with AWS D1.3/D1.3M, *Structural Welding Code—Sheet Steel*, and have them available for review during each site audit:
1. One representative Welding Procedure Specification (WPS)
 2. Supporting Procedure Qualification Record (PQR)
 3. Welder Performance Qualification Record (WPQR) maintained current and qualified with records of period of effectiveness
- SE4.4 If an active job site with metal decking installation activities is not available at the time of the site audit, mock exercises shall be used to demonstrate capabilities unless records are available for a metal decking installation project completed within the past two years.

Section 5 Bridge Erection Endorsement

- SE5.1 Participants/Applicants shall develop documented procedure(s) for the erection of steel bridges per *Standard* Section 12.
- SE5.2 Participants/Applicants shall have available the current edition, in English, and demonstrate their ability to work to, and meet, the requirements of the following normative documents:
- AASHTO/NSBA S10.1, *Steel Bridge Erection Guide Specifications*
 - AASHTO/AWS D1.5M/D1.5, *Bridge Welding Code*
- SE5.3 Participants/Applicants shall maintain the following documents in compliance with AASHTO/AWS, D1.5M/D1.5, *Bridge Welding Code*, and have them available for review during each site audit:
1. At least one Welding Procedure Specification (WPS)
 2. Supporting Procedure Qualification Record (PQR), when required
 3. Welder Performance Qualification Record (WPQR) maintained current and qualified with records of period of effectiveness
- SE5.4 A bolt demonstration shall be required of Participants/Applicants at every initial (INIT) and full (RF) site audit that complies with Appendix D of the AASHTO/NSBA S10.1, *Steel Bridge Erection Guide Specification*, for Field Rotational Capacity Testing.
- SE5.5 An active job site with bridge erection activities is required for the site audit, or if bridge erection has been completed within the past two years then the review of the records for the bridge project will be performed in lieu of the active site.



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COMMENTARY Provided for clarification of criteria in the *Standard* and includes references to the appropriate section(s) of the *Standard*.

- C1 1.6 **Contract Review** This section requires a “documented procedure” for contract review. As a part of this review, there will be required sign-offs, checksheet completion, or other means of determining that the bid offered is meeting the contract and that any special considerations found in the contract documents have been considered and planned for. During the audit, the auditor will be looking for evidence in the form of records of the outcome of the contract review process.
- C2 1.10.3 **Receipt inspection** The term “receiving inspection” is not used in the *Standard*. It has been replaced by 1.10.3 where “verification of purchased product, materials and services” is used. This verification or inspection can be performed as part of the purchasing or inspection procedure depending on how the company is structured. Section 1.13.2 does mention that “materials shall be inspected before work begins,” which is indicative of an inspection of materials, but if it is done as part of the in-process inspection and a defect is found requiring replacement of the material, then the delay could have a greater impact on the project than if the inspection is performed at or near receipt of material.
- C3 1.12 **Process Control** This section requires “documented procedure(s)” for those fabrication and erection processes that affect quality. A list of minimum required procedures is provided, but what are the procedures that affect quality? The answer to this question is found in the Glossary of the *Standard* by referring to the definition of Fabrication and Erection.
- C4 1.13 **Inspection Sampling** Section 1.13 requires “documented procedure” to ensure that the completed work meets contract documents.
- C5 1.10.2 **Subcontracted Fabrication/Erection** When a Certified company needs to subcontract fabrication/erection, the criteria of 1.10.2 require subcontractors to be evaluated on their ability to meet the requirements of approved construction documents. If the approved construction documents require a Certified Fabricator/Erector, then the subcontractor needs to meet the requirement. When an approved construction document is not met or needs to be changed/deviated from, 1.8.2 for control of construction documents is followed for requesting changes and approval.
- C6 1.14 **Calibration or Adjustment History** These types of quality records provide evidence that the calibration was performed and traceable to a national or international standard, to identification of the equipment that was calibrated, to who performed the calibration, to the date of the calibration, and the date the calibration expires or the next calibration is due. The calibration record would also provide evidence of any adjustments that were performed during the calibration process.
- C7 **Quality Control Records** This term is used throughout the *Standard* to identify this type of record. These records are controlled by referring to *Standard* Section 1.9.