AISC QUALITY MANUAL

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Abstract:
This document describes the Company's quality management system.

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### REVISION LOG

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Paragraph 5.6.3 is "value added" content.
1.0 Purpose
The purpose of the Quality Management System is to confirm to our Customers, the design community, building, Bridge/Highway Officials and the Construction Industry that (your Company) has the personnel, organization, experience, procedures, knowledge, equipment and commitment to produce steel products of the highest degree of quality possible.

2.0 Scope
The Company's quality management system applies to all employees within all functional areas of the Company's business operation. The Company's AISC Certification should not be understood as a product inspection of Structural Steel. This Quality Management System includes all functions to provide Structural Steel from receipt of contract through final delivery.

Categories of Certification:
- Bridge and Highway Metal Component Manufacturer (CPT)
- Standard for Shop Application of Complex Coating Systems (SPE)
- Standard for Steel Building Structures (STD)
- Steel Bridge Fabricator

2.1 Exclusions
The Company cites no exclusions to the AISC standard. (Note: Revise or delete this paragraph)

3.0 References
The latest editions of the following documents and standards are required:

a) AISC Steel Construction Manual, which includes the following specifications, codes and standards:
   I. AISC Specification for Structural Steel Buildings (AISC 360-10)
   II. AISC Code of Standard Practice for Steel Buildings and Bridges (AISC 303-10)
   III. RCSC Specification for Structural Joints Using ASTM A325 or A490 Bolts

b) ANSI/AWS D1.1 Structural Welding Code Steel

c) ANSI/AWS D1.5 Bridge Welding Code

d) AISC Selected ASTM Standards for Structural Steel Fabrication

e) SSPC - The Society for Protective Coatings
   I. SSPC-PA 1 "Shop, Field and Maintenance Painting of Steel"
   II. SSPC-PA 2 "Measurement of Dry Coating Thickness with Magnetic Gages"
   III. SSPC-VIS 1 "Guide and Reference Photographs for Steel Surfaces prepared by Dry Abrasive Blast Cleaning"

4.0 Definitions
See QMS-16 Definitions and Abbreviations Procedure for more details. Subordinate or external documentation is referenced in Bold Italics.
5.0 Management Responsibility
The Company is committed to continuous improvement and

5.1 Policy for Quality and Quality Goals
The Company's quality policy defines the purpose and context of the organization and its strategic direction, which includes a framework for setting quality objectives and pays particular attention to satisfying applicable requirements according to the Company's commitment to continuously improve the quality management system.

CUSTOMER FOCUS:

EMPOWERMENT:

INTELLIGENT MANAGEMENT:

WORKPLACE EXCELLENCE:

5.2 Direction and Leadership
Management review meetings are conducted according to the QMS-04 Management Process Procedure. This procedure defines
COMPANY VISION
To continually improve our construction, services and processes to meet our Customers' requirements, allowing us to prosper as a business and to produce a reasonable return on capital investment.

QUALITY POLICY

ENVIRONMENTAL POLICY

PRACTICAL STEPS TO SUPPORT POLICIES

Customer Focus:

Workplace Excellence:

Empowerment:

Intelligent Management:

SEE SECTION 5.1 FOR

5.3 Management Representative
The individual designated as Quality Manager (QM) understands all of the Company's quality procedures and has the authority to implement programs necessary to achieve the quality requirements of the Company. The Quality Manager is
5.4 Resources

The Company has the resources necessary to

5.4.1 Personnel

Personnel performing assigned functions have qualifications that indicate their ability to successfully perform the function. Unless otherwise noted, personnel can be assigned to more than one task, provided they are qualified and able to accomplish the duties for each position. Specifically, individuals responsible for Quality Assurance and Quality Control management do not Qualified personnel are assigned to manage the following functions:

- 
- 
- 
- 
- 
- 

5.4.2 Buildings, Workspace and Associated Utilities

The facility consists of areas and buildings that provide space for routine functions that are considered to be part of steel fabrication/erection, including administration.

The fabrication/erection facility includes

The facility also provides

5.4.3 Process Equipment (Hardware & Software)

The Company has under its control the equipment necessary to

5.5 Internal Communication

To ensure proper communication between and throughout all levels of employees within the Company, internal communication is

5.6 documentation requirements

The Company maintains all required documentation to effectively sustain its quality management system. All Managers are responsible for the implementation of procedures and records in their areas as required by the Quality Management System. The quality system documentation is comprised of a hierarchy of documents that flow from this Quality Manual.

5.6.1 General Requirements

The Quality System ensures

5.6.2 Quality Manual

The primary purpose of the Quality Manual and QMS Procedures is to describe and document the Quality Management System in place at the Company and to define all the processes in use within the Company. This manual is issued under the authority of

---

Corporate Vision and Governing Policy

Quality Manual
Defines overall Company policies and procedures

QMS Procedures
Defines quality system related processes in greater detail

Work instructions
and other job specific documentation

Forms
Used to record data; once complete, they become records.

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5.6.2.1 Organization
Review meetings are held by all managers two times each year to assess the status, effectiveness, continuing suitability and internal audits of the Quality System. Reviews are reported and records are retained and maintained. The controls for management review are defined in the QMS-04 Management Procedure.

The organizational chart below defines the basic management structure of the Company. In all cases, the appropriate person...

The qualifications of key personnel and managers listed are maintained in records according to the training program that is defined in the QMS-06 Training Procedure.

- See applicable project facility plan/map for detailed description of facility.
- See applicable equipment list designated for projects.

5.6.2.2 Approval
This manual is issued under the authority of the Company President. Changes to documents referenced herein are...
5.6.3 Order of Precedence

The order of precedence of order-specific documentation is as follows unless otherwise directed by Customer or government requirements:

1. 
2. 
3. 
4. 
5. 

6.0 Contract and Project Specification Review and Communication

The Company documents and implements a procedure for contract and project specification review. The review identifies, determines, plans and records specific project requirements as well as

Contract review records may include

Project requirements are distributed to responsible authorities in the Company. Contract, production and performance records are

Communications with the General Contractor and or Erector are documented by using the

A number is assigned to the RFI and then recorded in the RFI Log. The Log documents the following:

a) 
b) 
c) 
d) 
e) 

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7.0 Detailing

7.1 Detailing Procedures

7.1.1 Preparation of Shop Drawings and Erection Drawings
The Company has prepared and implemented a documented procedure for preparation of shop detail, assembly and project specific erection drawings and material ordering specifications to

7.1.2 Detailing Standards
The Company utilizes detailing standards to

The standards describe the Company's

Finally, the standards include

7.1.3 Shop and Erection Drawings
The Company has prepared and implemented a procedure to provide for checking of all shop, assembly and erection drawings to
7.1.3.1 Checking of Shop and Erection Drawings
The procedure describes the method by which the Company performs its final check of shop drawings. Detailing procedures are defined in the QMS-17 Detailing Procedure.

7.1.3.2 Approval of Shop Drawings
The detailing procedure describes...

7.1.3.3 Customer-Supplied Shop Drawings
When the Company receives shop drawings from the Customer, procedures are...

7.2 Detailing Function Resources

7.2.1 References (required library)
The Company maintains the current references as a library. Detailing procedures are defined in the QMS-17 Detailing Procedure.

7.2.2 Personnel
Detailing Management Connection Consultation and other detailing functions...

7.2.2.1 Detailing Management
Personnel performing Detailing Management are responsible for...

In lieu of these curricula, the Company describes and determines an appropriate method to demonstrate competence.

7.2.2.2 Detailing Functions
Personnel that detail and/or check shop and erection drawings have...
7.2.2.3 Connection Consultation
Personnel directing Detailers performing connection detailing are qualified by one or more of the following:

- 
- 
- 

7.2.3 Subcontract Services
In lieu of employed staff personnel, subcontract services may be used for the following functions:

however, the Company

8.0 Document and Data Control

8.1 Review and Approval
Documents affecting quality are
controls are defined in the QMS-02 Configuration Management Procedure.

8.2 Customer Requirements
The Company captures all contractual and special requirements of the Customer as well as any applicable statutory or regulatory requirements as part of the Proposal Development & Contract Review process. Once contractual and special requirements are captured, they are
8.3 Revision Control
The Quality Manual has a cover page showing the current revision date and the name and location of the Company. The revision is defined in the QMS-01 Control of Documented Information Procedure and QMS-02 Configuration Management Procedure.

8.4 Access
Relevant and current procedures and policies pertinent to an area of operation or management are

8.5 Obsolescence and Transmittal
Controlled documents that are obsolete are

8.6 Issue Control
The configuration of procedures, work instructions and shop and erection documents is controlled through advanced configuration management techniques that have been built upon the requirements of ISO 10007 and MIL-STD-973. Document release is authorized

8.7 Document Modifications
Controls are in place to ensure the use of current documentation. Obsolete documents are removed at the point of use. Some documents may be held by technicians and others that are

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9.0 Control of Quality Records
Records are retained and maintained to permit evaluation during the course of project construction or as otherwise specified. Quality records are available for Customer and regulatory agency examination.

9.1 Retention of Quality Records
The control of records is defined in the QMS-01 Control of Documented Information Procedure.

9.2 Availability of Quality Records
Records are controlled to

10.0 Purchasing
Purchasing is treated as a process within the Company's quality system. The Company accepts responsibility for the quality of products that are purchased from Suppliers, including Customer designated sources. The Company does not

10.1 Purchasing Data
Purchase documents clearly define the product ordered, including

Purchasing documents contain the following information:
10.2 Selection and Evaluation of Subcontractors

The purchasing process is fully defined in the QMS-08 Purchasing Procedure.

10.2.1 Fabrication/Erection Subcontractors

When required by contract, the Company uses Fabricator/Erector Subcontractors that are AISC certified or requests written waiver from the Customer when the desired Subcontractor does not offer an AISC Certification.

10.2.2 Detailing Subcontractors

The Company performs initial and ongoing evaluation of Detailing Subcontractors according to the QMS-08 Purchasing Procedure.

10.3 Verification of Purchased Product, Materials and Services

The responsibility for quality of subcontracted products remains with the Company. Acceptance does not.

The methods used for verification of purchased items are defined in the QMS-09 Receiving Procedure.

10.4 Customer Verification of Product

If specified in the Customer's purchase contract, the Customer or nominated representative is.

The methods used for the control of Customer verification are defined in the QMS-08 Purchasing Procedure.

10.5 Control of Customer Supplied Material

A negotiated Customer agreement to verify, store and maintain Customer supplied items is.

The methods for the control of Customer property are defined in the QMS-10 Construction Procedure.

11.0 Material Identification

A documented procedure has been established and maintained for identifying deliverable items.
The procedure provides for...

The methods for the control of Customer property and identification of deliverable items are defined in the **QMS-10 Construction Procedure**.

### 12.0 Process Control

Processes that create a condition where quality of deliverable items cannot be verified through normal methods are...

Effective implementation of the following documented procedures is required as a minimum:

- ...
- ...
- ...
- ...
- ...

The methods for the control of the fabrication/erection process are defined in the **QMS-10 Construction Procedure**.

### 12.1 Welding

The Company’s welding procedures include...

### 12.2 Bolt Installation

The Company’s bolting procedure includes...

### 12.3 Material Preparation for Application of Coatings

The Company’s prepares material for coating application according to...
12.4 Coating Application
The Company applies and cures coatings according to

12.5 Equipment Maintenance
A documented preventive maintenance program is implemented for equipment critical to product quality and delivery requirements; otherwise, the Company

13.0 Inspection and Testing
To ensure conformance to requirements of deliverable items, monitoring and measurement is conducted throughout the item’s lifecycle. Checks occur

The methods for the control of the inspection and testing process are defined in the QMS-10 Construction Procedure. Nonconforming items are controlled according to the QMS-14 Control of Nonconformances Procedure.

13.1 Assignment of QC Inspections and Monitoring
QC inspectors are assigned on the basis of experience, training, education or applicable certification by recognized industry organizations. Construction personnel are assigned to inspection duties under the following conditions:

•
•
•

13.2 Inspection Procedures
The following inspections are described in the QMS-10 Construction Procedure:

•
•
•
•
•
13.2.1 Material Receipt Inspection

Materials received are compared to purchase order requirements. The Receiver identifies deliveries are checked against *inspection instructions* and *purchase orders*. If materials are designated for further inspection, they are inspected. The methods for performing receiving inspections are defined in the *QMS-09 Receiving Procedure*.

13.2.2 In-Process Inspection

In-process inspections are conducted during construction to ensure ongoing quality of work, which

13.2.3 Final Inspection

The Company examines completed construction for conformance to

13.2.4 Inspection Records

See paragraph 9.0 herein.

14.0 Calibration of Inspection, Measuring and Test Equipment

All measuring and test equipment instruments and devices used to determine an item's conformance to specified requirements are calibrated. The controls for such equipment and calibration activities are defined in the *QMS-15 Calibration Procedure*. 
15.0 Control of Nonconformances

Nonconformances are identified and segregated to the extent possible or removed from the construction process. Documented procedures are controlled according to the QMS-14 Control of Nonconformances Procedure.

15.1 Nonconforming Process

The Company conducts internal audits at planned intervals to provide information on whether

15.2 Nonconforming Product

When a nonconformance occurs, including complaints, the Company

16.0 Corrective Action

The Company has implemented and maintains a robust system for identifying and reporting nonconformities requiring corrective action. Such reports result in

This process is defined in the QMS-13 Corrective Action Procedure.

17.0 Handling, Storage and Delivery of Product and Materials

According to contractual directives, instructions are detailed in the applicable job documentation for
The handling and shipping process is defined in the *QMS-11 Shipping Procedure*.

**18.0 Training**

All Company personnel are hired on the basis of their ability to perform acceptable work. Subsequent training is performed to ensure ongoing compliance with requirements of the Company's policies and procedures, which is accomplished by

The Company has implemented a training program that:

- ...
- ...
- ...
- ...
- ...
- ...

The training program is defined in the *QMS-06 Training Procedure*.

**19.0 Internal Audit**

Internal quality audits are conducted to ensure ongoing compliance with requirements of the Company's policies and procedures, which is accomplished by

The internal audit process is defined in the *QMS-12 Internal Auditing Procedure*.