[CompanyName]

Fabrication and/or Erection Quality Manual

Operating Policies of the [CompanyName] Quality System

Management acceptance

This Quality Manual has been reviewed and accepted by:

Endorsed By: (Name / Title)	[PresidentName], President		
Signature:	*[PresidentName]*	Date:	
Current Revision Date:		Version #	1.0

Revision History

DATE	DOCUMENT#	REVISION	COMMENTS	APPROVED BY
[Date]	QM	0	Original Issue	[PresidentName]

QUALITY MANUAL

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1. QUALITY MANUAL OVERVIEW

1.1. PURPOSE

This Quality Manual documents [CompanyName]'s commitment to quality assurance and compliance with the American Institute of Steel Construction (AISC) Certification Standard (AISC 207-23). The purpose of this manual is to demonstrate to owners, the design community, the construction industry, and public officials that [CompanyName] possesses the personnel, organization, experience, documented procedures, equipment, and commitment required to successfully and consistently perform steel fabrication and/or erection in compliance with recognized industry and AISC certification requirements.

1.2. QUALITY MANUAL MAINTENANCE

The Corporate Quality Manager is responsible for ensuring that the Quality Manual remains current, accurate, and aligned with AISC 207-23 standards.

1.3. REFERENCES AND APPLICABLE STANDARDS

1.3.1. STANDARDS

- ANSI/AISC 303 – Code of Standard Practice for Steel Buildings and Bridges
- ANSI/AISC 360 – Specification for Structural Steel Buildings
- AISC 207-23 – Standard for Certification Programs
- AWS D1.1/D1.1M – Structural Welding Code – Steel
- AWS A2.4 – Standard Symbols for Welding, Brazing, and Nondestructive Examination
- AWS A3.0 – Standard Welding Terms and Definitions
- ASTM A6/A6M – General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling
- ASTM A36/A36M – Carbon Structural Steel
- ASTM A572/A572M – High-Strength Low-Alloy Columbium-Vanadium Structural Steel
- ASTM A992/A992M – Structural Steel Shapes
- ASTM A307 – Carbon Steel Bolts, Studs, and Threaded Rod, 60,000 PSI Tensile Strength
- ASTM F3125 – Structural Bolts, Steel and Alloy Steel, Heat Treated, 120/105 ksi and 150 ksi Minimum Tensile Strength
- RCSC Specification for Structural Joints Using High-Strength Bolts

1.3.2. AVAILABILITY AND ACCESS

These standards and specifications are readily available to all personnel involved in project planning, execution, and quality assurance/control activities. Copies and electronic access to these standards are maintained and regularly updated in the [CompanyName] technical library and digital repository.

The Corporate Quality Manager.. is responsible for:

- Ensuring the current editions of applicable standards are available and clearly communicated to all relevant personnel.
- Conducting periodic reviews and updates of standards as they are revised by issuing organizations.

Project Managers and Supervisors must:

- Confirm all team members are familiar with the applicable standards.
- Verify adherence to these standards during all phases of the project.

1.3.3. STANDARDS REVIEW AND UPDATE

Regular reviews are conducted at least annually or upon notification of changes from issuing organizations. Updates and revisions are documented and communicated clearly to all personnel involved.

1.4. STRUCTURE OF THE QUALITY MANAGEMENT SYSTEM

[CompanyName]'s Quality Management System comprises the following key documents:

- Quality Manual – Policy-level documentation outlining management responsibilities, quality objectives, and core procedures.
- Project-specific Quality Plan(s) - Ensures that each project's quality requirements are clearly defined, communicated, and systematically implemented.
- Standard Operating Procedures (SOPs) – Detailed instructions addressing all key quality-related activities.
- Inspection and Test Plans (ITPs) – Project-specific quality planning and verification documentation.
- Work Instructions and Checklists – Operational tools supporting daily quality assurance and control practices.

This documentation set is designed to clearly define responsibilities, promote consistent quality performance, and maintain full compliance with AISC certification standards.

1.5. SUPPLEMENTAL PROCEDURES

- SOP 1.1 Quality Manual Maintenance

6. DOCUMENT AND RECORD CONTROLS

6.1. GENERAL REQUIREMENTS

[CompanyName] ensures that all documents and records related to quality management and project execution are systematically controlled, readily identifiable, and retrievable.

6.2. DOCUMENT CONTROL PROCEDURES

- All controlled documents (Quality Manual, SOPs, drawings, specifications, and forms) are clearly labeled with revision number, issue date, and approval status.
- The Master Document Register lists all active controlled documents, responsible owners, and revision histories.
- Revised documents are reviewed, approved, and issued per documented procedures.
- Obsolete documents are promptly removed or marked “Superseded” and archived securely.

To prevent inadvertent use of obsolete documents, [CompanyName] will implement clear marking, segregation, and prompt removal or archival of outdated or superseded documents. Regular audits of document control will verify compliance with these practices, and findings will be documented in internal audit reports.

6.3. COMMUNICATION OF REVISIONS

Revisions to Quality Management System documents (including the Quality Manual, SOPs, Quality Plans, Inspection and Test Plans, and supporting forms) shall be communicated to all affected personnel prior to implementation. The Document Control Coordinator is responsible for ensuring that all such communications are documented and traceable.

Methods of communication may include but are not limited to controlled email notifications, distribution logs, team briefings, toolbox talks, or postings in designated work areas. Communication methods shall be appropriate to the document type and the affected personnel's access requirements.

6.4. RESPONSIBILITIES FOR DOCUMENT CONTROL, REVIEW, AND APPROVAL

- Corporate Quality Manager.. – Oversees the document control system and ensures compliance with documented procedures.
- Document Control Coordinator – Maintains the Master Document Register, issues updates, and archives obsolete documents.
- Project Managers and Supervisors – Verify their teams use only the most current approved documents.

The table below defines the required functions and authority levels for the review and approval of Quality Management System documents. All new or revised documents must be approved by the same function and authority level that originally authorized the document. These responsibilities shall also apply during periodic reviews and document updates.

Document Type	Responsible Function	Approval Authority
Quality Manual	Corporate Quality Manager	Executive Management
Standard Operating Procedures (SOPs)	Department Manager / Document Author	Corporate Quality Manager
Project-Specific Quality Plans	Project Manager	Corporate Quality Manager
Forms and Logs	Form Developer / SOP Owner	Corporate Quality Manager
Inspection and Test Plans (ITPs)	Project Quality Manager	Corporate Quality Manager
Work Instructions	Department Manager	Corporate Quality Manager

6.5. Record Control and Retention

- All quality-related records (inspection reports, calibration certificates, training records, nonconformance reports, etc.) are stored securely and maintained to ensure legibility, retrievability, and protection against loss or damage.
- Retention periods for records are clearly defined and comply with AISC and contractual requirements.
- Records are systematically reviewed upon expiration of retention periods and dispositioned in accordance with company policy.

All QMS documents shall be reviewed at a minimum annually, or when triggered by organizational, regulatory, or contractual changes. All changes shall be clearly documented through revision control, with updated issue dates, revision numbers, and recorded in the Revision Log.

6.6. Access to Records

The Document Control Coordinator shall ensure that all current versions of Quality Management System documents (including the Quality Manual, SOPs, project-specific quality plans, inspection and test plans, and forms) are distributed to appropriate personnel at all points of use. Documents shall be made available in print or electronically, depending on the context of use, to ensure that all individuals responsible for performing functions that affect the quality of the completed work have timely and reliable access to current, approved versions.

Obsolete documents shall be promptly removed from points of use and clearly marked or archived to prevent unintended use, as detailed in Section 6.2.

6.7. Supplemental Procedures

- SOP 6.1 Document Control and Records Management
- SOP 6.2 Record Control and Retention
- SOP 6.3 Access to Quality Records
- SOP 6.4 Revision Control of Project Documents
- SOP 6.5 Control of Client-Supplied Documentation
- SOP 6.6 Approval Documents Control

9. Fabrication and Erection Process Controls

9.1. General Requirements

[CompanyName] ensures that fabrication and erection processes are clearly defined, controlled, and verified to meet project requirements, applicable standards, and AISC certification criteria.

The Corporate Quality Manager. will periodically review and validate all critical fabrication and erection procedures, at least annually or whenever significant changes in processes, equipment, or applicable standards occur. This validation will include documented evaluations of compliance with relevant codes and standards, verification of personnel training and qualifications, and assessment of equipment adequacy. The Corporate Quality Manager. will document the results of these reviews, maintain them as quality records, and communicate findings and necessary actions to executive management.".

9.2. Fabrication Process Controls

- All fabrication operations (cutting, drilling, welding, assembly, and coating) are performed according to documented procedures and applicable standards (AISC, AWS, ASTM).
- Fabrication procedures define equipment, methods, tolerances, acceptance criteria, and required inspections.
- In-process inspections verify compliance before proceeding to subsequent fabrication steps.

9.2.1. Cutting, Drilling, and Preparation

- All cutting and drilling operations are conducted according to approved shop drawings and project specifications.
- Visual and dimensional checks are documented using in-process inspection forms.
- Out-of-tolerance or incorrectly prepared materials are documented and segregated per Nonconformance Reporting.

9.2.2. Welding and Assembly

- Welding operations conform strictly to AWS D1.1, approved Welding Procedure Specifications (WPS), and welder qualifications.
- Assemblies are checked for fit-up accuracy, alignment, and weld quality prior to release from the fabrication area.
- Nonconformances identified during welding or assembly are recorded and corrected according to documented procedures.

9.2.3. Surface Preparation and Coatings

- Surface preparation and coating application are performed according to SSPC standards, manufacturer guidelines, and project-specific requirements.
- Environmental conditions (temperature, humidity, cleanliness) are monitored and recorded during coating operations.

9.3. Erection Process Controls

- Erection activities comply fully with AISC standards, contract specifications, and site-specific erection plans.
- Field erection inspections are performed regularly, verifying alignment, bolt tightness, plumb, and overall conformance to approved erection drawings.
- Field personnel are trained and qualified for specific erection tasks per documented procedures.

9.4. Equipment and Tooling Control

- Fabrication and erection equipment (cutting machines, welders, cranes, rigging) is regularly inspected and maintained per manufacturer recommendations and documented schedules.
- Tools and equipment found to be defective, or out-of-calibration are immediately removed from service and clearly tagged until repaired or recalibrated.

9.5. Responsibilities

- Shop and Field Supervisors – Ensure process controls and inspections are properly implemented.
- Corporate Quality Manager. – Responsible for conducting periodic validation reviews of fabrication and erection processes, maintaining documentation of these reviews, and communicating findings to executive management.
- Corporate Quality Manager. – Responsible for conducting periodic validation reviews of fabrication and erection processes, documenting results, and communicating findings to executive management.
- Project Manager – Ensures all field operations adhere strictly to approved plans and specifications.

9.6. Supplemental Procedures

- SOP 9.1 Fabrication Process Controls
- SOP 9.2 Welding Procedures Control
- SOP 9.3 Surface Preparation and Coatings
- SOP 9.4 Erection Process Controls
- SOP 9.5 Equipment and Tooling Control

15. INTERNAL AUDIT AND MANAGEMENT REVIEW

15.1. GENERAL REQUIREMENTS

[CompanyName] performs periodic internal audits and annual management reviews to ensure the continued effectiveness and compliance of the Quality Management System with AISC certification requirements and applicable project specifications.

15.2. INTERNAL AUDIT PROGRAM AND FREQUENCY

- Internal audits are conducted at planned intervals, typically at least once per year or as required by project milestones or certification requirements.
- Audits evaluate compliance with the Quality Manual, SOPs, project quality plans, and applicable standards (AISC, AWS, ASTM).
- Audits are conducted by qualified personnel independent of the work being audited.
- Audit results are documented in Internal Audit Reports and reviewed by the Corporate Quality Manager.

15.3. AUDIT FINDINGS AND CORRECTIVE ACTIONS

- Audit findings are categorized by severity (major, minor, observation) and recorded in the Corrective Action Log.
- Corrective actions are initiated for nonconformances and tracked through completion and verification.
- The Corporate Quality Manager. ensures that all audit findings are reviewed and resolved in a timely manner.

15.4. MANAGEMENT REVIEW

- Senior management conducts a formal review of the Quality Management System at least annually.
- Management Review inputs include audit results, nonconformance trends, customer feedback, status of objectives, changes in requirements, and training needs.
- Review outputs include decisions and action items for improving the QMS, updating resources, and assigning responsibilities.

15.5. REVIEW DOCUMENTATION AND RECORDS

- Management Review meeting minutes and supporting documents are retained for a minimum of five years.
- Corrective actions resulting from reviews are documented, tracked to completion, and evaluated for effectiveness.
- All records are maintained per SOP 6.2 – Records Control and Retention.

15.6. RESPONSIBILITIES

- Corporate Quality Manager.. – Plans and conducts internal audits, maintains audit and review records, and follows up on corrective actions.
- Executive Management – Participates in and documents management review, authorizes QMS changes, and assigns improvement actions.

- Auditors – Conduct audits objectively and report findings in a professional and unbiased manner.

15.7. SUPPLEMENTAL PROCEDURES

- SOP 15.1 Internal Audit Program
- SOP 15.2 Internal Audit Frequency
- SOP 15.3 Audit Findings and Corrective Actions
- SOP 15.4 Management Review Procedure
- SOP 15.5 Continuous Improvement Management
- SOP 15.6 Internal Audit and Management Review Records Management

[CompanyName]

Quality System
Standard Operating Procedures

Note on Forms Usage

All forms referenced in the Standard Operating Procedures (SOPs) are provided in a separate document titled "Forms Package – AISC Quality System." Please refer to the "Forms Cross-Reference Table" included in that package to locate the appropriate form for each SOP.

STANDARD OPERATING PROCEDURES

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SOP 1.1 QUALITY MANUAL MAINTENANCE

Version: 1.0
Effective Date: [Date]
Approved By: [PresidentName]
Implementation Responsibility: Corporate Quality Manager
Review/Revision Responsibility: Document Control Coordinator
Final Approval Authority: President or Executive Management

Purpose

To ensure the Quality Manual remains current, accurate, and aligned with AISC 207-23 standards.

Scope

Applies to the regular review, updating, approval, and distribution of the company Quality Manual.

Responsible Person(s)

Corporate Quality Manager or designated responsible party.

Procedure

1. Schedule annual reviews of the Quality Manual.
2. Conduct unscheduled reviews if significant changes occur (e.g., AISC updates, organizational changes).
3. Document any updates or revisions clearly in a revision log.
4. Require review and approval of changes by Executive Management.
5. Distribute updated manual promptly to all affected personnel.
6. Ensure obsolete versions are clearly marked and archived.

Records:

- Quality Manual revision log (including date, reason, approval authority).
- Distribution records.

SOP 6.2 Record Control and Retention

Version: 1.0
Effective Date: [Date]
Approved By: [PresidentName]
Implementation Responsibility: Corporate Quality Manager
Review/Revision Responsibility: Document Control Coordinator
Final Approval Authority: President or Executive Management

Purpose:

To establish consistent, secure, and compliant storage, retention, and retrieval procedures for project quality records.

Scope:

All project quality documentation and records.

Responsible Persons:

- Document Control Coordinator
- Quality Manager

Procedure:

1. Identify and categorize records clearly by type and retention requirements.
2. Securely store records to protect from damage, loss, or unauthorized access.
3. Clearly document retention periods and disposition methods for records.
4. Conduct regular audits of stored records to verify compliance with retention requirements.

Retention Policy

Quality records shall be retained as follows unless superseded by project-specific contract requirements:

Document Type	Recommended Retention Period
Calibration records	Life of equipment + 2 years
Certificates of Conformance (CoC)	Project completion + 5 years or contractual duration
Corrective action requests (CAR)	5 years
Drawing logs	Project completion + 5 years
Equipment maintenance records	Life of equipment + 2 years
Inspection and NDT reports	Project completion + 5 years
Material Test Reports (MTRs)	Project completion + 5 years

Document Type	Recommended Retention Period
Nonconformance reports	Project completion + 5 years
RFIs and related documentation	Project completion + 5 years
Personnel certifications	Duration of employment + 3 years
Training records	Duration of employment + 3 years
Subcontractor and supplier evaluations	5 years from the date of evaluation

Records:

- Record Inventory Log
- Record Retention Audit Records

SOP 9.1 Fabrication Process Controls

Version: 1.0
Effective Date: [Date]
Approved By: [PresidentName]
Implementation Responsibility: Corporate Quality Manager
Review/Revision Responsibility: Document Control Coordinator
Final Approval Authority: President or Executive Management

Purpose:

To ensure structural steel fabrication processes meet project specifications, AISC, AWS, and applicable quality standards.

Scope:

All fabrication activities including cutting, drilling, welding, assembly, and coating.

Responsible Persons:

- Shop Foreman
- Quality Manager
- Fabrication Supervisor

Procedure:

1. Conduct all fabrication operations per approved shop drawings and project specifications.
2. Document and verify equipment settings and material preparations regularly.
3. Perform inspections at critical fabrication stages for compliance.
4. Clearly document and address any nonconformance issues immediately.

Records:

- Fabrication Inspection Reports
- Nonconformance Documentation
- Equipment Calibration and Verification Logs

SOP 9.2 WELDING PROCEDURES CONTROL

Version: 1.0
Effective Date: [Date]
Approved By: [PresidentName]
Implementation Responsibility: Corporate Quality Manager
Review/Revision Responsibility: Document Control Coordinator
Final Approval Authority: President or Executive Management

Purpose:

To ensure welding activities conform strictly to AWS D1.1 and specified Welding Procedure Specifications (WPS).

Scope:

All welding operations conducted by [CompanyName].

Responsible Persons:

- Certified Welding Inspector (CWI)
- Quality Manager
- Shop Foreman

Procedure:

1. Verify welders and welding operators are qualified per AWS standards and project requirements.
2. Clearly document and use approved WPS during all welding activities.
3. Conduct regular weld inspections to verify quality and compliance.
4. Document inspections and immediately address weld nonconformances.

Records:

- Welder Qualification Records
- Welding Procedure Specifications (WPS)
- Weld Inspection Reports

SOP 10.1 Inspection and Test Plan (ITP) Development

Version: 1.0

Effective Date: [Date]

Approved By: [PresidentName]

Implementation Responsibility: Corporate Quality Manager

Review/Revision Responsibility: Document Control Coordinator

Final Approval Authority: President or Executive Management

Purpose:

To create detailed Inspection and Test Plans (ITPs) for project verification activities, clearly outlining inspection stages, methods, acceptance criteria, and responsibilities.

Scope:

All structural steel projects managed by [CompanyName].

Responsible Persons:

- Quality Manager
- Project Manager

Procedure:

1. Develop project-specific ITPs detailing inspections and tests required at each stage with define inspection methods and acceptance criteria per project specifications.
2. Inspection sampling must explicitly follow these criteria unless otherwise stated in the project specifications:
3. Visual Inspection: 100% inspection of all structural welds and bolted connections
4. Non-Destructive Examination (NDE): Minimum 10% of welds randomly sampled per welder per project or as contractually required
5. Bolt Tension Verification: Explicit torque testing on a minimum of 10% of all bolted connections
6. Any deviations must be explicitly approved by the Project Quality Manager and documented in project records."
7. Identify responsible personnel and schedule inspections systematically.
8. Obtain approval of ITPs from relevant management before project implementation.

Records:

- Approved Inspection and Test Plans
- ITP Approval Documentation

SOP 14.2 Training Program Development and Implementation

Version: 1.0
Effective Date: [Date]
Approved By: [PresidentName]
Implementation Responsibility: Corporate Quality Manager
Review/Revision Responsibility: Document Control Coordinator
Final Approval Authority: President or Executive Management

Purpose

This SOP defines clear methods for evaluating training comprehension and documenting successful completion, ensuring compliance with AISC 207-23 standards.

Scope

This procedure applies to all training activities conducted by [CompanyName] for personnel involved in fabrication, erection, quality assurance, and control activities.

Responsibilities

1. Training Coordinator is responsible for:
   - Organizing training sessions.
   - Documenting attendance and successful completion of training.
2. Quality Manager is responsible for:
   - Reviewing training documentation and evaluation processes.
   - Auditing records of training activities and comprehension evaluations.

Training Comprehension Evaluation Methods

- Written examinations or quizzes
- Practical demonstrations of skills
- Oral questioning or interviews
- On-the-job evaluations conducted by supervisors or trainers

Documentation of Evaluation

- Participant name and position
- Training topic
- Evaluation method used
- Date of evaluation
- Evaluator's name and signature
- Evaluation outcome (Pass/Fail or Competent/Not Competent)

Documentation Procedure

1. Complete "Training Attendance Log" for each training session.

2. Evaluate comprehension using approved methods.
3. Record results on the "Training Comprehension Evaluation Form."
4. File evaluation documents securely with training records.

Training Matrix by Role and Business Type

The following matrix outlines recommended training topics by job function and business model.

Job Role	Fabricator Training Topics	Erector Training Topics	Required Records
Welder	WPS reading, weld symbols, filler selection, defect recognition	N/A	WQTR, CWI Signoff
Fitter	Shop tolerances, layout practices, bolt patterns	Erection sequence, layout tolerance, bolt fit-up	Training Log
Painter	SSPC-SP levels, coating storage/DFT readings, PPE	Touch-up repair, field DFT checks	Training Log, Coating Certs
Inspector	Visual inspection methods, use of gauges, NCR reporting	Bolting inspection, visual weld acceptance, field fit-up checks	Inspection Qualifications
Rigger/Signal Person	Crane signals, sling inspection, rigging plans	Crane hand signals, load limits, tag line use	Rigger/Signal Qualification Card
Project Manager	Contract review, ITP generation, QMS overview	Pre-task planning, punchlist closeout, client walkthroughs	Training Record

Documentation and Records

Maintain comprehensive training documentation, including:

- Training Attendance Logs
- Training Comprehension Evaluation Forms
- Certification and completion records
- Audit records related to training and comprehension verification

All records must be securely stored, maintained up-to-date, and readily available for internal and external audits.

SOP 14.3 On-the-Job Training and Mentoring

Version: 1.0
Effective Date: [Date]
Approved By: [PresidentName]
Implementation Responsibility: Corporate Quality Manager
Review/Revision Responsibility: Document Control Coordinator
Final Approval Authority: President or Executive Management

Purpose:

To define structured on-the-job training (OJT) and mentoring procedures for new or reassigned personnel.

Scope:

All personnel newly hired or reassigned to quality-critical tasks.

Responsible Persons:

- Department Supervisors
- Quality Manager

Procedure:

1. Assign qualified mentors or trainers to personnel undergoing OJT.
2. Document training objectives, activities, and duration.
3. Evaluate and document trainee performance regularly.

Records:

- OJT Records
- Performance Evaluation Documentation

[CompanyName]

Fabrication and/or Erection

Project Quality Plan

[ProjectName]

[ProjectNumber]

Management acceptance

This Project Quality Plan has been reviewed and accepted.

Endorsed By: (Name / Title)	[QualityManagerName], Project Quality Manager		
Signature:	[QualityManagerName]	Date:	[Date]
Version	1.0	Notes	Initial Issue

PROJECT-SPECIFIC QUALITY PLAN

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B. PROJECT-SPECIFIC QUALITY OBJECTIVES

[CompanyName] has established the following measurable objectives to ensure successful quality outcomes on all structural steel fabrication and erection projects.

ON-TIME MILESTONES

- Achieve at least 95% adherence to interim milestones.
- Ensure 100% completion of final project deliverables by contract-specified deadlines.

INSPECTION PASS RATES

- Maintain a minimum 98% first-pass acceptance rate for all quality inspections and tests.

NONCONFORMANCE MANAGEMENT

- Resolve all identified nonconformances within the contractual timelines or no later than 10 working days from initial identification.

CUSTOMER SATISFACTION

- Attain a customer satisfaction rating of at least 90%, as measured by formal client feedback surveys conducted at project completion.

TRACKING AND DOCUMENTATION OF QUALITY METRICS

The [CompanyName] establishes clear and consistent methods to track and document performance against these quality objectives throughout the project including:

ON-TIME MILESTONES

We maintain detailed project schedules with clearly identified interim and final milestones. Document schedule adherence using project management software or standardized tracking forms.

INSPECTION PASS RATES

We record inspection outcomes using standardized Inspection and Test Plans (ITPs). Regularly summarize inspection pass rates in monthly quality reports.

NONCONFORMANCE MANAGEMENT

We utilize formal Nonconformance Reports (NCRs) to identify, track, and resolve quality issues. Maintain a detailed NCR log, reviewed at regular project quality meetings.

CUSTOMER SATISFACTION

We conduct documented customer satisfaction surveys at defined intervals or upon project completion. Analyze and record survey outcomes in project quality records.

[CompanyName] regularly reviews these documented metrics during internal quality meetings and management reviews, ensuring continuous improvement and compliance with established objectives.

D. PROJECT ORGANIZATION CHART AND RESPONSIBILITIES

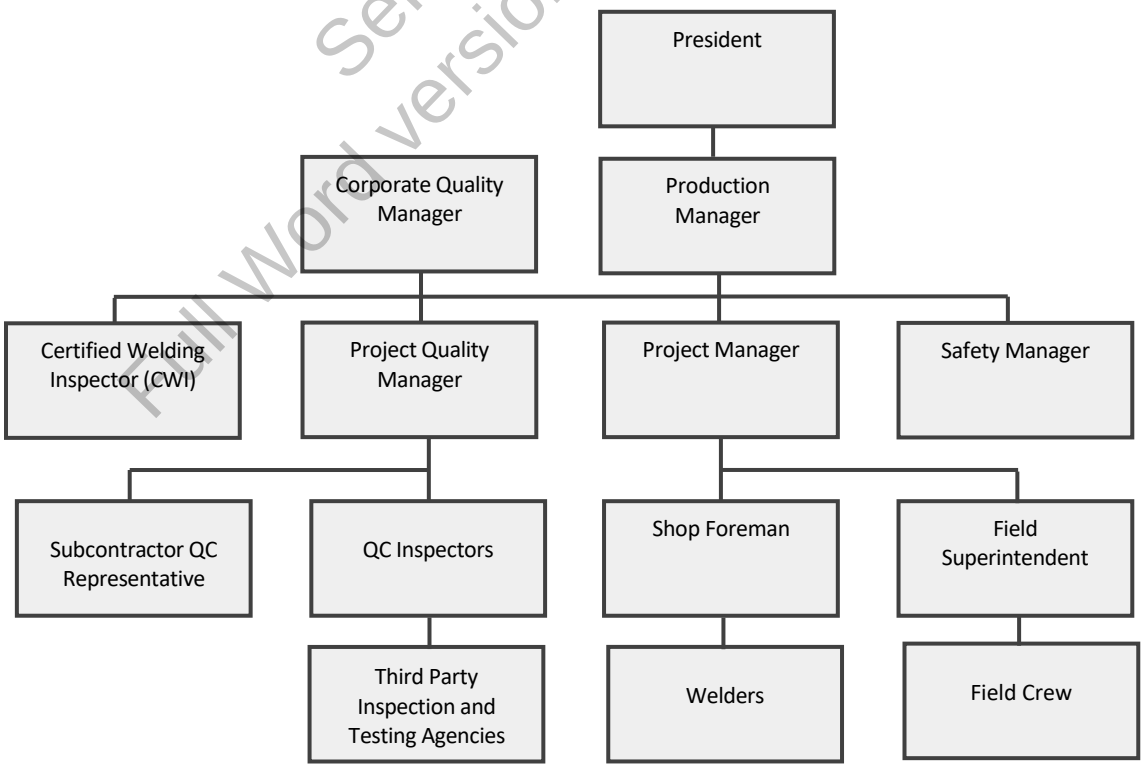
PROJECT QC ORGANIZATION CHART

The President defines the organization chart for the project. The organizational chart includes job titles, names of assigned personnel, and organizational and administrative interfaces with the customer. The organization chart defines lines of authority as indicated by solid connection; dotted lines indicate lines of communication. The lines of authority preserve independence of quality control personnel from the pressures of production.

When a person with authority is unavailable only a person with higher authority may assume the responsibility of the unavailable person.

Figure D-1 shows the QC Organization Chart for this project.

Figure D-1



I. Material Inspection Traceability and Quality Controls

Products and materials are controlled to assure the use of only correct and acceptable items. Controls include identification of the inspection status. Materials that require lot control traceability and the method of traceability are listed on the Controlled Materials form included as an exhibit in this subsection.

Identification of Lot Controlled Materials

The Project Quality Manager determines types of project materials that require quality controls.

For each type of quality-controlled material, the Project Quality Manager determines lot control traceability requirements, if any, and specifies the means of lot identification. Identification methods may include physical labels, tags, markings and/or attached certification documents.

When lot-controlled materials are received, the Superintendent verifies that materials have the specified lot identifications.

The Superintendent maintains lot identification at all production phases from receipt, through production, installation, or assembly, to final completion. Acceptable methods for preserving lot identification include physically preserving observable lot identifications, recording the lot identification on a work task quality inspection form or other work record, or collecting the physical lot identifier as a record along with supplemented with location.

If lot-controlled materials are without lot identification, the Superintendent deems the materials as nonconforming and segregates them and/or clearly marks them to prevent inadvertent use. The Superintendent treats the material according to the company policy for nonconformances. Only the Project Quality Manager can re-identify or re-certify the materials.

Heat Traceability of Metals

Heat numbers are traced for metals including:

- Carbon steel
- Galvanized steel
- Aluminum
- Stainless steel

Heat identification of metals includes:

- Material supplier heat number is either marked by the material supplier or reproduced by the Superintendent or other competent person. As an alternative an adhesive label or tag on the bundle is an acceptable method.
- When metal is cut into pieces, the heat number is marked on each piece (except scrap)
- Color code is painted on all four corners of each piece of plate material.
- Color code is painted on both ends of strip material.
- Bundles of material may be marked on one piece. If a piece is removed from the bundle, heat trace information must be transferred so that both the piece and the bundle are identified. When the bundle is separated, each individual piece is marked.

CUSTOMER SUPPLIED MATERIALS

Care will be exercised for customer property used by or under [CompanyName] control. [CompanyName] will identify, inspect, verify, control, and protect customer property with the procedures that apply to company purchased materials. If any customer property is lost, damage, or otherwise found to be unsuitable for use [CompanyName] will report this to the customer.

MATERIAL RECEIVING AND INSPECTION

When lot-controlled materials are received, the Project Manager inspects the materials and verifies that materials have the specified lot identifications. Received materials are listed on the Material Receiving and Inspection Report form or Metals Materials Receiving and Inspection form included as an exhibit in this subsection.

Material quality inspections and tests ensure that purchased materials meet purchase contract quantity and quality requirements.

PRESERVATION OF MATERIALS AND COMPLETED WORK

[CompanyName] will preserve and protect work in process, completed work, component parts, materials, and when applicable, delivery to the destination to maintain so that compliance with project requirements and standards. This includes handling, storage, protection from natural elements, and reducing risks of damage.

Completed work is protected from damage as specified by government regulations, contract technical specifications, industry standards, or product installation instructions.

The Project Quality Manager identifies supplemental protection requirements that apply to a specific project when they are necessary to assure quality results.

[CompanyName]
Controlled Materials Form

Contract ID	Contract Name	Preparer	Date	
[ProjectNumber]	[ProjectName]			

Contract Section/ Activity ID	Material	Intended Use (If description is necessary)	Lot Traceability Requirements	Method for identification of Approved Inspection Status

[CompanyName] Metals Material Receiving Inspection Report				
Project ID	**Project Name**	**P.O.#**	**Supplier**	**Receipt Date**
[ProjectNumber]	[ProjectName]			
Type of Material (i.e., steel plate)	**Material Description (Nominal dimensions)**	**Heat Number/ Serial Number/Markings**	**Condition / Damage**	**Color Code Marking**
Receiving Inspector Approval Signature / Date		**Government Representative Name/Approval Date**		
				❑ Material Receiving Inspection Passed

[CompanyName]
Material Inspection and Receiving Report

Contract ID	Contract Name	Purchase Order No.	Supplier	Bill of Lading No.	Date
[ProjectNumber]	[ProjectName]				

Item No.	Stock/Part No.	Description	Quantity Received	Condition	Marking	Accept	Conditional Use	Reject
						☐	☐	☐
						☐	☐	☐
						☐	☐	☐
						☐	☐	☐
						☐	☐	☐
						☐	☐	☐

Receiving Quality Control

ACCEPTANCE

Listed items have been accepted by me or under my supervision

☐ Conform to contract specifications EXCEPT as noted herein or on supporting documents.

☐ Received in apparent good condition EXCEPT as noted

Signature of authorized person and date: _____

EXCEPTIONS:

M. CONTROL OF CORRECTIONS AND NONCONFORMANCES

Should a problem occur in the quality of work, we systematically contain the issue and quickly make corrections. Our first action is to clearly mark the item by tape, tag, or other easily observable signal to prevent inadvertent cover-up.

Then we expedite a corrective action that brings the workmanship or material issue into conformance by repair, replacement, or rework. Previously completed work is reinspected for similar nonconformances. If we cannot correct the item to meet contract specifications, the customer will be notified, and customer approval of corrective actions is required before proceeding.

Fixing problems found is not sufficient. [CompanyName] systematically prevents recurrences to improve quality. First enhanced controls and management monitoring are put into place to assure work proceeds without incident. Then using a structured problem-solving process, [CompanyName] identifies root causes and initiates solutions. Solutions may involve a combination of enhanced process controls, training, upgrading of personnel qualifications, improved processes, and/or the use of higher-grade materials. Follow-up ensures that a problem is completely resolved. If problems remain, the process is repeated.

Nonconformances and their resolution are recorded on a Nonconformance Report form. A Nonconformance Report form exhibit is included in this subsection.

MARKING OF NONCONFORMANCES AND OBSERVATIONS

When the Project Quality Manager, Superintendent, inspector, or customer identifies a nonconformance or an observation, the item is quickly and clearly marked by tape, tag, or other easily observable signal to prevent inadvertent cover-up.

CONTROL THE CONTINUATION OF WORK

After the item is marked, the Superintendent determines if work can continue in the affected area:

CONTINUE WORK: When continuing work does not adversely affect quality or hide the defect, work may continue in the affected area while the disposition of the item is resolved. The Superintendent may place limitations on the continuation of work.

STOP WORK ORDER: When continuing work can adversely affect quality or hide the defect, work must stop in the affected area until the disposition of the item resolved. The Superintendent identifies the limits of the affected area. The Superintendent quickly and clearly identifies the boundaries of the stop work area.

RECORDING OF NONCONFORMANCES

If nonconformances or observed items exist by the work task completion inspection, the Superintendent or inspector records the nonconformances on a nonconformance report.

The Superintendent sends the nonconformance report to the Project Quality Manager.

PROJECT QUALITY MANAGER DISPOSITION OF NONCONFORMANCE REPORTS

When the Project Quality Manager receives a Nonconformance Report, he or she assesses the affect the reported nonconformance has on form, fit, and function. The Project Quality Manager may assign a disposition of either:

REPLACE: The nonconformance can be brought into conformance with the original specification requirements by replacing the nonconforming item with a conforming item.

REPAIR: The nonconformance can be brought into conformance with the original requirements through completion of required repair operations.

REWORK: The nonconformance can be made acceptable for its intended use, even though it is not restored to a condition that meets all specification requirements. The Project Quality Manager may specify standards that apply to the completion of rework. Rework nonconformances must be approved by the customer.

USE AS-IS: When the nonconforming item is satisfactory for its intended use. Any use as-is items that do not meet all specification requirements must be approved by the customer.

CORRECTIVE ACTIONS

The Superintendent verifies that corrective actions eliminate the nonconformance to the requirements of the original specifications or as instructed by the disposition of the nonconformance report, and then removes, obliterates, or covers the nonconformance marker.

Furthermore, the Superintendent ensures that previously completed work is reinspected for similar nonconformances and corrective actions are taken to avert future.

CONTROL OF CORRECTIVE ACTIONS

When a nonconformance is found, the Superintendent ensures that:

- Previously completed work is reinspected for similar nonconformances
- Corrective actions are taken to avert future occurrences

The Project Quality Manager identifies requirements for corrective actions with respect to frequency, severity, and detectability of quality nonconformances items found during and after completion of work activities.

When a solution requires changes to [CompanyName] quality standards, the Project Quality Manager makes modifications as necessary by making changes to:

- Material specifications
- Personnel qualifications
- Subcontractor and Supplier qualifications
- Company standards
- Inspection processes

CORRECTIVE ACTION TRAINING

The Superintendent initiates corrective action training to address quality nonconformances. Personnel and subcontractors and suppliers performing or inspecting work participate in the training.

Heightened awareness during quality inspections verifies and documents compliance with the corrective action improvement items. A qualified Superintendent inspects corrective actions during regular quality inspections and records observations on the quality inspection form.

The Superintendent notifies affected subcontractors and suppliers of selected preventive action training requirements.

The Superintendent evaluates the effectiveness of the improvements. The Project Quality Manager reviews improvement results recorded on quality inspection records and monthly field reviews. When the Project Quality Manager determines that the improvement actions are effective, the item is no longer treated as a preventive action.

NONCONFORMANCE PREVENTIVE ACTIONS

Fixing problems found during quality inspections is not sufficient. Systematic prevention of recurrences is essential for improving quality.

[CompanyName] makes changes to solve the problem. Solutions may involve a combination of enhanced process controls, training, upgrade personnel qualifications, improved processes, or use of higher-grade materials.

Follow-up ensures that a problem is completely resolved. If problems remain, the process is repeated.

[CompanyName]
Nonconformance Report

Nonconformance Report Control ID	Project ID	Project Name
	[ProjectNumber]	[ProjectName]
Preparer Signature/ Submit Date		**Project Quality Manager Signature / Disposition Date**
Description of the requirement or specification		
Description of the nonconformance, location, affected area, and marking		
Disposition	☐Replace ☐ Repair ☐ Rework ☐ Use As-is	
	Approval of disposition required by customer representative? Yes ☐ No ☐ Customer approval signature /date: _____	
Corrective Actions	☐Corrective actions completed Name/Date:_____ Customer acceptance of corrective actions required? Yes ☐ No ☐ Name/Date:_____	
Preventive Actions		
	☐Preventive actions completed Name/Date:_____	

P. QUALITY ASSURANCE SURVEILLANCE AND RISK MANAGEMENT

Every month, [CompanyName] holds a performance improvement meeting with the participation of key project and customer personnel. They review past performance, project quality risks, and quality issues. An action plan is set for improvement, and progress is reviewed at the next meeting.

PROJECT AUDIT REQUIREMENTS

The Project Quality Manager conducts monthly Project Quality System audits that verify proper operation of the Quality System on a project. At least monthly, the Project Quality Manager audits:

- Risks and mitigation actions
- Quality system framework
- Quality system management and responsibilities
- Customer contract specifications
- Design control
- Project-specific quality standards
- Project purchasing
- Process control plans
- Inspections and tests
- Nonconformances and corrective actions
- Preventive actions
- Quality records and documents

The Project Quality Manager takes corrective actions to ensure compliance with Quality System requirements. The effectiveness of changes is then evaluated and documented.

[CompanyName]
Project Quality System Audit Form

Project ID	Project Name	Auditor	Date
[ProjectNumber]	[ProjectName]		

Review Topics:
(Place check mark next to each item audited)

- ❑ Customer satisfaction
- ❑ On-time task completion
- ❑ Contract administration
- ❑ Risk management review
- ❑ Safety compliance
- ❑ Quality risk planning and mitigation
- ❑ Performance improvement results
- ❑ Action plan for improvements

Quality Plan Conformance:

- ❑ Project QC Personnel
- ❑ Project Quality Coordination and Communication
- ❑ Employee Qualifications
- ❑ Qualification of subcontractors and suppliers
- ❑ Project Quality Specifications
- ❑ Testing Plan
- ❑ Test Reports
- ❑ Work Task Quality Inspections
- ❑ Daily Quality Control Report
- ❑ Control of Punch Items and Nonconformances
- ❑ Project Records and Documents

Nonconformance Notes and observations

Action plan for improvement

Follow-up results and date

[CompanyName]

Quality System

Forms

Forms Cross-Reference Table by SOP

This table lists each SOP alongside its applicable form(s).

Form Title	SOP Reference
Quality Manual Revision Log	SOP 1.1
Quality Manager Appointment Letter	SOP 2.2
Project Manager Appointment Letter	SOP 2.2
Superintendent Appointment Letter	SOP 2.2
Design Manager Appointment Letter	SOP 2.2
Safety Manager Appointment Letter	SOP 2.2
Purchasing Manager Appointment Letter	SOP 2.2
Work Task QA/QC Plan	SOP 3.5
Quality Controlled Work Task List	SOP 3.5
Project Quality Communications Plan	SOP 3.9
Work Task Quality Control Planning Meeting Form	SOP 3.9
Point of Contact List	SOP 3.9
Project Records and Documentation Plan	SOP 3.11
Contract Review Checklist	SOP 4.1
Project Submittals Log	SOP 4.2
Change Order Form	SOP 4.3
Project Submittal Form	SOP 4.4
Design Review Plan	SOP 5.1
Design Review Meeting Participant Form	SOP 5.1
Design Review Form	SOP 5.1
Detailing Review Checklist	SOP 5.1
Client Drawing Receipt Log	SOP 5.1
System Document Control Form	SOP 6.1
Project Records Control Form	SOP 6.2
Subcontractor and Supplier Quality Communications Plan	SOP 7.1
Laboratory Qualification Form	SOP 7.1
Subcontractor and Supplier Qualification Form	SOP 7.1
Subcontractor Certifications and Licenses	SOP 7.1
Project Subcontractor List	SOP 7.1
Customer-Furnished Material Logs	SOP 7.4
Weld Filler Material Issue Log	SOP 8.3
Welder Qualifications Log	SOP 9.2
Welder Certification Letter	SOP 9.2

Inspection and Test Plan and Log	SOP 10.1
Inspection and Test Plan (ITP)	SOP 10.1
Quality Inspection and Test Plan	SOP 10.1
Material Inspection and Receiving Log	SOP 10.2
Visual Weld Inspection Report	SOP 10.3
Weld Inspection and Test Report	SOP 10.3
Weld and NDE Tracking Log	SOP 10.4
NDE Report Template	SOP 10.4
Inspection and Test Report	SOP 10.5
Test Equipment Calibration Log	SOP 11.2
Nonconformance Report	SOP 12.1
Nonconformance Report Control Log	SOP 12.1
Corrective Action Report	SOP 12.3
Qualified QC Inspector List	SOP 14.1
Project Personnel Qualification Form	SOP 14.1
Construction Personnel Certifications and Licenses	SOP 14.1
Project Quality Training Plan	SOP 14.2
Training Plan	SOP 14.2
Training Log	SOP 14.2
Project Quality System Audit Form	SOP 15.1
Quality System Audit Form	SOP 15.1

Forms Table of Contents

[CompanyName]
Visual Weld Inspection Report

Form #: [Form#] / Version: 1 / Revision: 0 / Effective Date: [Date]

Report ID #	Unique Part ID (Serial #, Shop order, or batch number)	Project ID	Project Name	Drawing # & Rev.	Date of Inspection

Procedure and Acceptance Criteria / Ref#	Inspection Result Pass/Fail	Nominal	Actual	Tolerance	Comments

Final acceptance of completed work (sign and date)

Inspector Sign and Date	Superintendent Sign and Date

[CompanyName]
Weld Inspection and Test Report

Form #: [Form#] / Version: 1 / Revision: 0 / Effective Date: [Date]

Inspection Report ID #	Project ID	Project Name	Preparer Signature	Date
	[ProjectNumber]	[ProjectName]		

Work Activity:	Item inspected and/or tested:

Ref#	Specification reference documents (titles or description with version/date)

Inspection/Test Record (additional items on next page)

Inspection/ Test/ ID #	Inspection/Test Points/Location	Acceptance Criteria / Ref#	Test Result, Nonconformance	Non-conformance Disposition rework/reject/Non-conformance Report	Corrections Made / Final Acceptance	
					Initial	Date

Acceptance of completed work activity (sign and date)

Inspector/Tester	Subcontractor and Supplier/Supplier	Superintendent

[CompanyName]
NDE Report Template

Form #: [Form#] / Version: 1 / Revision: 0 / Effective Date: [Date]

Project: Id# [ProjectNumber]	Project Name: [ProejctName]	Equipment ID
Inspection Date:	Inspector:	Equipment Calibration Date:
Inspection Type: ☐ UT ☐ MT ☐ PT ☐ RT ☐ VT		Procedure Reference:

Weld / Part ID	Location	Accept	Reject	Remarks / Defects Found	Corrective Action (if any)

Verification of Completion (sign and date)

Signature:	Approval Date:

[CompanyName]
Test Equipment Calibration Plan and Log

Form #: [Form#] / Version: 1 / Revision: 0 / Effective Date: [Date]

Project ID	Project Name	Preparer	Date	
[ProjectNumber]	[ProjectName]			

Type of measuring device	Calibration Type and Frequency	Measuring Device ID	Calibrated By/ Calibration Date	Calibration certificate #	Next Calibration Due Date
					Project Start

[CompanyName]
Weld and NDE Tracking Log

Form #: [Form#] / Version: 1 / Revision: 0 / Effective Date: [Date]

Project ID	Project Name	Drawing # & Rev.	Unique Part ID (Serial #, Shop order, or batch number)

Welder Name	Welder ID	Date	Time	Configuration Status of Weld	Quantity

For More Information:

Visit our Online Store at:

www.firsttimequalityplans.com

or

Contact: First Time Quality

410-451-8006

edc@firsttimequality.com