

[CompanyName]

[CompanyAddress]

[CompanyPhone]

Fabrication Quality Manual

Operating Policies of the [CompanyName] Quality System

Management acceptance

This Quality Manual has been reviewed and accepted

Endorsed By: (Name / Title)	[PresidentName], President		
Signature:	<i>[PresidentName]</i>	Date:	[Date]
Version	1.0	Notes	Initial Issue

This manual is the property of [CompanyName]. The information contained herein is confidential and for internal use only. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of [CompanyName].

Revision History

DATE	DOCUMENT#	VERSION	COMMENTS	APPROVED BY

Selected Pages
Not a Complete Plan or Manual

QUALITY MANUAL

TABLE OF CONTENTS

1. Quality Management, ROLES, and Responsibilities	7
1.1. Overview	7
1.2. [CompanyName] Quality Policy Responsibilities	7
1.3. Appointment of Key Project Personnel	7
1.4. Project QC Organization Chart.....	7
1.5. Quality Duties, Responsibilities, and Authority	8
2. Personnel Qualifications	11
2.1. Overview	11
2.2. Qualification of [CompanyName] Visual, MT, or PT Personnel	11
2.3. Qualification of Welders and Welding Operators	12
2.4. Qualification of Welders for Specific Welding Procedures.....	12
2.5. Maintenance of Welder and Welding Operator Qualifications.....	12
2.6. Certified Welding Inspector Requirements.....	12
2.7. NDE Welding Inspector Requirements	13
3. Job-specific Quality Planning.....	14
3.1. Overview.....	14
3.2. [CompanyName] License and Qualification Requirements	14
3.3. Planning of Quality Controlled Work Tasks	15
3.4. Quality Inspection and Test Planning	15
3.5. Quality Training Planning.....	15
3.6. Customer Training On Operation and Maintenance	15
3.7. Records and Documentation Plan	15
3.8. Quality Audit Plan	16
4. Contract Specifications.....	17
4.1. Overview.....	17
4.2. Contract Technical Specifications	17
4.3. Contract Drawings	17
4.4. Contract Submittals	17
4.5. Customer Submittal Approval	19
4.6. Contract Warranty.....	20
4.7. Contract Review and Approval	20
5. Detail Design Review and Control	21
5.1. Overview.....	21
5.2. Detail Design Input Review.....	21
5.3. Detailing Design Plan	21
5.4. Detail Design Progress Reviews.....	22
5.5. Detail Design Output Verification and Approval	22

6. Quality Standards	23
6.1. Overview	23
6.2. Regulatory Codes	23
6.3. Welding Quality Standards	23
7. Qualification of Outside Organizations	25
7.1. Overview	25
7.2. Prequalification of Subcontractors and Outside Organizations	25
8. Purchasing	27
8.1. Overview	27
8.2. Purchase Order Requirements	27
8.3. Material Purchase Order Approvals	27
8.4. Subcontracts	28
9. Welding Control	29
9.1. Welding Procedure Specifications (WPS)	29
9.2. Welder ID	29
9.3. Tack Welds	29
10. Material Controls	30
10.1. Material Specifications	30
10.2. Work Process Specifications	30
10.3. Application of Multiple Sources of Specifications	30
10.4. Welding Material	31
10.5. Material Receiving Inspection	31
10.6. Material Inspection and Test Status	31
10.7. Material storage	32
10.8. Control of Customer Property	32
10.9. Controlled Use of Materials	32
10.10. Controlled Material Identification and Traceability	32
11. Weld Examination and Inspection Program	34
11.1. Inspection of Welding Work	34
11.2. Required Work Task Quality Inspections and Tests	35
11.3. Material Inspections and Tests	35
11.4. Work in Process Inspections	36
11.5. Work Task Completion Inspections	36
11.6. Inspection of Special Processes	36
11.7. Independent Measurement and Tests	37
11.8. Hold Points for Customer Inspection	37
11.9. Quality Inspection and Test Specifications	37
11.10. Inspection and Test Acceptance Criteria	37
11.11. Inspection and Testing Standards	37
11.12. Work Task Inspection and Test Status	39

11.13. Independent Quality Assurance Inspections	40
11.14. Work Task Inspection and Test Records	40
11.15. Project Completion and Closeout Inspection	41
12. Nondestructive Examination	43
12.1. Overview.....	43
12.2. Subcontracted NDE Procedures	43
12.3. Subcontractor NDE Personnel	43
12.4. NDE Records	43
13. Calibration of Measurement and Test Equipment	44
13.1. Overview.....	44
13.2. Calibration Procedure.....	44
13.3. Calibration Records	44
13.4. Verification and Validation of Welding Machines	45
13.5. Calibration Identification	45
13.6. Discrepant Equipment	45
14. Storage, Shipping and Handling.....	46
14.1. Preservation, Storage and Protection of Materials and Completed Work.....	46
15. Nonconformances and Corrective Actions.....	47
15.1. Overview.....	47
15.2. Nonconformances	47
15.3. Corrective Actions	48
16. Preventive Actions	50
16.1. Overview.....	50
16.2. Identify Preventive Actions for Improvement	50
16.3. Train Preventive Actions for Improvement	50
17. Quality System Audits	52
17.1. Overview.....	52
17.2. Company-wide Quality System Audit	52
18. Record and Document Controls.....	53
18.1. Overview.....	53
18.2. Quality System Documents	53
18.3. Document Controls.....	53
18.4. Record Control and Retention.....	54
19. Appendix.....	56
19.1. Definitions of Terms	56
20. Forms	59

WELDING QUALITY POLICY

[CompanyName] is committed to quality. Our objective is to safely deliver 100 percent complete fabrication projects that meet all contract and customer expectations the first time, every time. Our commitment to quality means:

- Every [CompanyName] employee is responsible for fully implementing and complying with all provisions of the [CompanyName] quality system.
- Our quality standards meet or exceed all applicable regulations, codes, industry standards, and manufacturer specifications as well as with our customers' contract and individual requirements.
- We stand behind our work. We inspect every work task to assure conformance to the project requirements. Should problems be found, we correct them.
- We are always improving. All employees receive regular training to make systematic improvements to remove quality risks and enhance quality performance.

We conduct our work with dignity and respect for the customer, our subcontractor and supplier partners, and ourselves.

Approval Signature, Title, and Date:

[PresidentName] President, [Date]

Selected Pages
Not a Complete Plan or Manual

2. PERSONNEL QUALIFICATIONS

2.1. OVERVIEW

The Quality Manager qualifies employee capabilities to ensure that they are capable of completely carrying out their assigned quality responsibilities including the following capabilities:

- Knowledge of Company quality standards
- Knowledge of job responsibilities and authority
- Demonstrated skills and knowledge
- Demonstrated ability
- Demonstrated results
- Required training
- Required experience

The Quality Manager also evaluates independent contractor personnel on the same standards that apply to employees.

2.2. QUALIFICATION OF [COMPANYNAME] VISUAL, MT, OR PT PERSONNEL

QC Inspectors who perform VT, MT, or PT examinations on [CompanyName] welds are qualified and certified for each method in accordance with the following minimum requirements:

- Instruction by the Level III or Quality Manager in the fundamentals of the NDE method.
- On the job training to familiarize the candidate with the appearance and interpretation of indications of weld defects. The length of such training shall be sufficient to assure adequate assimilation of the knowledge required.
- Candidates already qualified in one method may, at the discretion of the Quality Manager, be exempt from this training for other methods.
- A visual acuity examination performed at least annually to determine the optical capability of the candidate to read Jaeger 1 letters at a distance of not less than 12", and to distinguish the contrast between colors.

Upon completion of the above, the candidate is given an oral or written examination and a performance examination by the Quality Manager to determine if he is qualified to perform the examination and interpret the results.

Certification records of each QC Inspector who performs NDE examination shall be signed and dated by the Quality Manager and placed in the examiner's file.

All First Time Quality Samples are Copyright Protected

- Recommended Practice ASNT SNT-TC-1A - Current Code accepted edition, qualification of Nondestructive Testing Personnel

2.3. QUALIFICATION OF WELDERS AND WELDING OPERATORS

For structural metals fabrication, only certified welders may perform welding activities. Welders must be certified and maintain a valid certification in accordance with the AWS Welder Certification Program and have completed the necessary tests in accordance with QC7, *Standard for AWS Certified Welders*.

The Quality Manager or a Certified Welding Inspector (CWI) will review and approve the welder and welding operator's qualification record for compliance with the necessary code(s) before they begin welding on a specific project.

A WPQ/WOPQ is also required for the welder who welded the test welds used to qualify a WPS or to re-qualify, based on the performance essential variables used. The original WPQ/WOPQ's are retained in the Quality Manager's files.

The Quality Manager approves the qualification of all welders before they begin welding on a specific project.

2.4. QUALIFICATION OF WELDERS FOR SPECIFIC WELDING PROCEDURES

When indicated on the welding procedure, the Quality Manager approves the qualification of welders to the specific welding procedure.

2.5. MAINTENANCE OF WELDER AND WELDING OPERATOR QUALIFICATIONS

Each qualified welder is listed on the Welding Personnel Certifications and Licenses form in the Forms section of this Quality Manual. The Quality Manager determines from the Welding Personnel Certifications and Licenses form when a welder's qualification will expire.

2.5.1. RETESTING BASED ON QUALITY OF WORK

In addition to welder certification, welding personnel may be required to be retested based on the following criteria:

- An interview of the welder
- Increased visual inspection for a limited time period
- Observation of the welding, or a simplified weld test developed to evaluate the issue of concern
- Requalification in compliance with Clause 6 or Clause 10 for tubulars of the D1.1/D1.1 M code

All First Time Quality Samples are Copyright Protected

6. QUALITY STANDARDS

APPLICABLE REGULATIONS, INDUSTRY, and COMPANY STANDARDS

6.1. OVERVIEW

[CompanyName] personnel and suppliers are accountable for compliance to standards-based written specifications.

To achieve expectations reliably and consistently, specifications are clearly spelled out, not only for results but also for processes. Specifications apply to materials, work steps, qualified personnel and suppliers, safe work rules, and environmental work conditions.

Standards ensure that results are specified rather than left to discretionary practices.

6.2. REGULATORY CODES

All [CompanyName] Welding and Fabrication activities comply with the relevant regulations. The Quality Manager identifies regulatory requirements applicable to the jurisdictions served, including:

- Applicable Federal regulations
- Applicable State regulations
- Applicable building codes and local addenda to building codes
- Applicable Fire Code
- Applicable Fuel and Gas Code
- Applicable Mechanical Code
- Applicable Plumbing Code
- Additional regulations specified by the customer contract

The Quality Manager identifies regulatory requirements that apply to a specific job.

The Supervisor had shop access to relevant codes and government regulations.

6.3. WELDING QUALITY STANDARDS

All [CompanyName] Welding and Fabrication activities comply with generally accepted good workmanship practices and industry welding standards.

The Quality Manager identifies supplemental requirements for industry standards that apply to a specific job during the Quality Assurance/Quality Control Planning when it is not otherwise specified by the contract, contract technical specifications, or approved drawings.

Description	Reference Standard No.	Reference Standard Title
Minimum spacings and edge distances for screws	AISI SG02-KIT	North American Specification for the Design of Cold-Formed Steel Structural Members
Installation of chimneys, vents, and smokestacks	NFPA 211	Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances
Install high-strength bolts		RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts"

[CompanyName] Quality Manual

Welding standards	AWS B2.1/B2.1M	Specification for Welding Procedure and Performance Qualification
Standard practices for structural steel fabrication – bound series of standards	AISC Code of Standard Practice for Steel Buildings and Bridges	AISC Code of Standard Practice for Steel Buildings and Bridges
Specification for steel fabrication for structural steel buildings	AISC Specification for Structural Steel Buildings	AISC Specification for Structural Steel Buildings
Structural steel joints	RCSC Specification for Structural Joints Using ASTM A325 or A490 Bolts	RCSC Specification for Structural Joints Using ASTM A325 or A490 Bolts
Standard design symbols	ANSI/AWS A2.4	Symbols
Standard terms	ANSI/AWS A3.0	Terms and Definitions
QA recommended practices	AWS Welding Quality Assurance Guideline for Fabricators (WQAG)	Welding Quality Assurance Guideline for Fabricators (WQAG)
Coating of steel	SSPC Steel Structures Painting Manual, Volume I, Good Painting Practice	Steel Structures Painting Manual, Volume I, Good Painting Practice
Coating of steel	SSPC Steel Structures Painting Manual, Volume II, Systems and Specifications	Steel Structures Painting Manual, Volume II, Systems and Specifications
Detailing standards for the design of structural steel details	AISC Detailing for Steel Construction	Detailing for Steel Construction
Workmanship and techniques for welded construction	AWS D1.1/D1.1M	Structural Welding Code – Steel

Not a Complete Plan or Manual
Selected Pages

11. WELD EXAMINATION AND INSPECTION PROGRAM

11.1. INSPECTION OF WELDING WORK

11.1.1. DIMENSIONAL INSPECTIONS – SIZE, LENGTH, AND LOCATION OF WELDS

A qualified welding inspector inspects all weld dimensions to ensure that the size, length, and location of all welds conform to the requirements of the applicable AWS Welding Code(s) or Specification(s) (i.e., D1.1., D1.5) as specified in the Manual Conformance section of this Manual, and to the detail drawings; and that no unspecified welds have been added without the approval of the contract Engineer.

11.1.2. WELD INSPECTIONS

During the welding process, at suitable intervals, weld inspections are performed by a qualified welding inspector. Such inspections will be conducted, on a sampling basis, prior to assembly, during assembly, and during welding. The welding inspector will observe joint preparation, assembly practice, and the welding techniques, and performance of each welder, welding operator, and tack welder to ensure that the applicable requirements of the AWS Welding Code(s) or Specification(s) (i.e., D1.1., D1.5) as specified in the Manual Conformance section of this Manual are met.

11.1.3. FINAL INSPECTIONS

After completion of the work, a certified welding inspector performs a final visual inspection of every weld to ensure that the requirements of the applicable sections of code are met. Other acceptance criteria, different from those described in the applicable AWS Welding Code(s) or Specification(s) (i.e., D1.1., D1.5) as specified in the Manual Conformance section of this Manual, may be used when approved by the Engineer on the contract.

Size and contour of welds will be measured with suitable gages. Visual inspection for cracks in welds and base metal and other discontinuities will be observed with the aid of a strong light, magnifiers, or such other devices as may be found helpful.

11.1.4. WELD INSPECTION AND TEST STATUS

The inspector identifies final acceptance or rejection of the work either by marking the work or with other recording methods.

All First Time Quality Samples are Copyright Protected

- Record of defect findings
- Nominal
- Actual
- Tolerance

The Inspector will record inspection results on the Visual Weld Inspection Report or other form if approved by the contract Engineer.

An example of the Visual Weld Inspection Report is included in the Forms section at the end of this Manual.

11.2. REQUIRED WORK TASK QUALITY INSPECTIONS AND TESTS

The Quality Manager identifies each Task that is a phase of fabrication and erection that requires separate quality controls to assure and control quality results. Each Task triggers a set of requirements for quality control inspections before, during and after work tasks.

Tasks are divided into two categories:

- Discrete Tasks are standard type of work where a completion inspection is performed one time at the completion of a phase of work.
- Process Tasks are tasks where completion inspections are performed continuously. Continuous inspections are required when there is a limited window of time to perform a completion inspection before the next task begins. Process tasks may also be characterized by independent monitoring of a work process, such as welding, where the observer verifies conformance to work procedures.

Process tasks undergo additional quality controls that continuously monitor compliance with specifications.

Independent quality audits are conducted to verify that the task quality controls are operating effectively.

Fabrication and erection projects may execute a work task multiple times in a project, in which case a series of quality inspections are required for each work task.

11.3. MATERIAL INSPECTIONS AND TESTS

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

11.3.1.1. MATERIAL RECEIVING INSPECTION

The Supervisor inspects or ensures that a qualified inspector inspects materials prior to use for

All First Time Quality Samples are Copyright Protected

The Supervisor ensures that each work task that uses the source inspected materials proceed only the material has been accepted by the source inspection.

All First Time Quality Samples are Copyright Protected

ensure that work activities begin only when they should begin. Job-ready quality inspections verify that conditions conform to the project quality requirements.

11.4.1.2. INITIAL WORK IN PROCESS INSPECTION

For each work task, the Supervisor or a qualified inspector performs an initial work in process inspection when the first representative portion of a work activity is completed.

11.4.1.3. FOLLOW-UP WORK IN PROCESS INSPECTIONS

The Supervisor or a qualified inspector performs ongoing work in process quality inspections to ensure that work activities continue to conform to project quality requirements. Punch Items

If the Supervisor or inspector observes an item for correction prior to a work task completion inspection, the item is identified for correction. During the work task completion inspection each punch item correction is verified.

Any outstanding punch items remaining after the work task completion inspection is deemed a nonconformance.

11.4.2. ADDITIONAL INSPECTION REQUIREMENTS FOR PROCESS TASKS

For each process task, a qualified person inspects the ongoing completion work for conformance to project quality requirements. This is in addition to discrete task completion inspections that are performed one time at the end of a phase of work.

The continuous monitoring inspections are conducted before starting other work activities that may interfere with an inspection.

11.5. WORK TASK COMPLETION INSPECTIONS

For each work task, the Quality Manager or a qualified inspector inspects the completion of each work

All First Time Quality Samples are Copyright Protected

The Quality Manager identifies special processes where the results cannot be verified by subsequent inspection or testing and determines if continuous work in process inspections is required. For these special processes, a qualified inspector continuously inspects the work process.

11.7. INDEPENDENT MEASUREMENT AND TESTS

The Quality Manager ensures that quality tests that apply to a specific project are clearly identified. Tests for a project include:

- Customer required quality tests as specified by the contract, contract technical specifications, contract drawings, and approved submittals.
- Additional quality tests necessary to assure quality results.

11.8. HOLD POINTS FOR CUSTOMER INSPECTION

The Supervisor stops work when reaching a hold point specified on the inspection and test plan. The Supervisor ensures that work proceeds only with customer approval.

11.9. QUALITY INSPECTION AND TEST SPECIFICATIONS

Specifications for each inspection or test are clearly understood before the inspection or test is performed including:

- Items to be inspected/tested
- Inspections/tests to be performed
- Testing schedule frequency
- Specification references including contract drawing identification number and version, if applicable, and/or contract technical specification number and version, if applicable
- Performing party
- Witness parties
- Certificates required
- Checklists/procedures
- Reference standards

11.10. INSPECTION AND TEST ACCEPTANCE CRITERIA

Inspections assess conformance of materials or work for each work task to project quality requirements, including applicable:

- Applicable AWS and AISC Codes
-

All First Time Quality Samples are Copyright Protected

Table 12.1

Description	Reference Standard No.	Reference Standard Title
Identification markings to conform to ASTM standards specified in the approved construction documents	AISC 360 Section A3.3 and applicable ASTM material Standards	Material verification of high-strength bolts, nuts, and washers
Identification markings to conform to AWS specification in the approved construction documents	AISC 360, Section A3.5 and applicable AWS A5 documents	Material verification of weld filler materials
Inspection of high-strength bolting	AISC 360, Section M2.5	Inspection of high-strength bolting
For structural steel, identification markings to conform to AISC 360	AISC 360, Section M5.5 and applicable ASTM material standards	Material verification of structural steel and cold-formed steel deck
Ultrasonic weld inspecting techniques	ASNT SNT-TC-1A Q&A Bk C	Ultrasonic Testing Method
Ultrasonic Inspection	ASTM E 164	Standard Practice for Contact Ultrasonic Testing of Weldments
Liquid Penetrant Inspection	ASTM E 165	Standard Practice for Liquid Penetrant Examination for General Industry
Magnetic Particle Inspection	ASTM E 709	Standard Guide for Magnetic Particle Testing
Radiographic Inspection	ASTM E 94.D	Standard Guide for Radiographic Examination
Non-destructive weld testing and visual examination	AWS B1.11	Guide for the Visual Examination of Welds
Specification for Welding Procedure and Performance Qualification	AWS B2.1/B2.1M	Specification for Welding Procedure and Performance Qualification
Test frequency for ferrous materials	AWS D1.1/D1.1M	Structural Welding Code – Steel
Visual inspection of welds	AWS D1.1/D1.1M	Structural Welding Code – Steel
Structural Welding Code - Sheet Steel	AWS D1.3	Structural Welding Code - Sheet Steel
Inspection of Reinforcing Steel welding	AWS D1.4 ACI 318, Section 3.5.2	REQUIRED VERIFICATION and INSPECTION OF CONCRETE CONSTRUCTION

11.11.1.1. NDE TEST PROCEDURES

NDE shall be performed in accordance with written NDE procedures by a certified NDE inspector.

The NDE procedures shall be approved by a Level III in the NDE method(s) that the procedure is based on. The Level III shall be qualified and certified in accordance with the employer’s written practice based on ASNT SNT-TC-1A. The certification process shall include the educational, training, experience, and testing provisions described in SNT-TC-1A.

NDE test procedures will be issued revised and distributed according to the Project Documents and Record control procedures described in the appropriately titled section of this Quality Manual.

11.12. WORK TASK INSPECTION AND TEST STATUS

All First Time Quality Samples are Copyright Protected

11.13. INDEPENDENT QUALITY ASSURANCE INSPECTIONS

The Quality Manager and/or qualified inspectors perform independent quality assurance inspections that verify that task quality controls are operating effectively.

The Quality Manager selects a representative portion of task completion inspections performed by the Supervisor. Those tasks are independently inspected by the Quality Manager and/or qualified inspectors. The findings are compared to the findings of the inspections performed by the Supervisor. Any deviations are addressed by corrective actions and preventive actions, as necessary.

11.14. WORK TASK INSPECTION AND TEST RECORDS

11.14.1. WORK TASK INSPECTION RECORDS

The Quality Manager prepares an inspection form for each work task. The Quality Manager lists on the form checkpoints for heightened awareness including:

- Initial job-ready inspection requirements
- Inspection and tests
- Work in process inspection requirements
- Completion quality inspections
- Other quality requirements as necessary to reduce quality risks

The person responsible for the inspection records work task inspection results on the work task inspection form.

11.14.2. WORK TASK TEST RECORDS

Test result data include as appropriate:

- Reference to the inspection and test plan item
- Description or title of the inspection activity
- Drawing identification number and version, if applicable
- Technical specification number and version, if applicable
- Location of the inspection activity
- Acceptance criteria
- Nonconformances
- Validation that nonconformances are corrected, reinspected or retested, and confirmed to meet Quality System requirements.
- Any open items to be completed later.
- Inspector's name and signature indicating compliance with all requirements of the Quality System
- Quality rating scores as appropriate

- Date of inspection or test
- Certificate, if applicable
- Conspicuous statement of final result as either “CONFORMS” or “DOES NOT CONFORM”

11.15. PROJECT COMPLETION AND CLOSEOUT INSPECTION

11.15.1. PRE-FINAL [COMPANYNAME] INSPECTION

Near the end of the project, or a milestone established in the Project Quality Inspection and Test Plan, the Quality Manager will inspect the completed project and verify conformance to contract specifications.

The Quality Manager records nonconforming items.

The Supervisor assigns a planned date by which the deficiencies will be corrected. The date may be assigned for all items or individual items, as necessary. After corrections have been made, the Supervisor verifies the completion of each item.

Then the Quality Manager conducts a follow-up inspection and verifies that all nonconforming items have been corrected to meet contract specifications. Any remaining deficiencies are recorded and managed as nonconformances.

When the pre-final [CompanyName] inspection process is complete, the Quality Manager then notifies the customer that the project is ready for the customer’s final inspection. The customer is also notified of any remaining nonconformances and their planned resolution.

11.15.2. PRE-FINAL CUSTOMER INSPECTION

If the customer performs a pre-final inspection, the Quality Manager records nonconforming items and assigns a planned date by which the deficiencies will be corrected.

The Supervisor assigns a planned date by which the deficiencies will be corrected. The date may be assigned for all items or individual items, as necessary. After corrections have been made, the Supervisor verifies the completion of each item.

After corrections have been made, the Quality Manager will conduct a follow-up inspection and verify that all nonconforming items have been corrected to meet contract specifications. Any remaining deficiencies are recorded and then managed as nonconformances.

When the pre-final customer inspection process is complete, the Quality Manager then notifies the customer that the project is ready for the customer’s Final inspection. The customer is also notified of any remaining nonconformances and their planned resolution.

All First Time Quality Samples are Copyright Protected

20. FORMS

[CompanyName] System Document Control Form.....	60
[CompanyName] Records Control Form.....	1
[CompanyName] Controlled Materials Form	2
[CompanyName] Material Inspection and Receiving Report.....	3
[CompanyName] Metals Material Receiving Inspection Report	4
[CompanyName] Weld Filler Material Issue Log.....	5
[CompanyName] Change Order Form	1
[CompanyName] Project Submittal Form.....	2
[CompanyName] Nonconformance Report	3
[CompanyName] Test Equipment Calibration Plan and Log	1
[CompanyName] Weld Personnel Certifications and Licenses.....	1
[CompanyName] Project Subcontractor and Supplier List.....	2
[CompanyName] Quality Inspection and Test Plan	3
[CompanyName] Visual Weld Inspection Report	4
[CompanyName] Welding Personnel Qualification Form	5
[CompanyName] Welding Personnel Certifications and Licenses	6
[CompanyName] Subcontractor and Supplier Certifications and Licenses.....	7
[CompanyName] Training Record	8
[CompanyName] Quality Program Audit Form.....	9
Form N-1 Welding Procedure Specification Prequalification	10
Form N-3 WPS QUALIFICATION TEST RECORD_ELECTROSLAG and ELECTROGAS WELDING	12
Form N-4 WELDER, WELDING OPERATOR, OR TACK WELDER QUALIFICATION TEST RECORD.....	13
Form N-9 STUD WELDING APPLICATION QUALIFICATION TEST DATA.....	14
Form M-8 Ultrasonic Unit Calibration Report-AWS	15
Form M-9 dB Accuracy Evaluation.....	16
Form M-10 Decibel (Attenuation or Gain) Values Nomograph	17
Form M-11 Report of UT of Welds	18
Form N-7 REPORT OF RADIOGRAPHIC EXAMINATION OF WELDS.....	20
Form N-8 REPORT OF MAGNETIC-PARTICLE EXAMINATION OF WELDS	21
Form S-15 Report of UT (Alternative Procedure).....	22

[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
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Receiving Quality Control								
<p>ACCEPTANCE</p> <p>Listed items have been accepted by me or under my supervision</p> <p><input type="checkbox"/> Conform to contract specifications EXCEPT as noted herein or on supporting documents.</p> <p><input type="checkbox"/> Received in apparent good condition EXCEPT as noted</p> <p>Signature of authorized person and date: _____</p>								
EXCEPTIONS:								

[CompanyName] Weld Filler Material Issue Log							
Job Number	Heat	AWS Class	Welder Name	Welder ID	Date	Quantity	WPS

Selected Pages
Not a Complete Plan or Manual

**[CompanyName]
Test Equipment Calibration Plan and Log**

Type of measuring device	Device Serial Number	Calibration Type and Frequency	Calibration Tolerance	Calibrated By/ Calibration Date	Standard Used	Next Calibration Due Date

Not a Selected Pages
Complete Plan or Manual

[CompanyName] Weld Personnel Certifications and Licenses			
Project ID	Project Name	Preparer	Date
[ProjectNumber]	[ProjectName]		

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

Person	Certification, License, or Credential	Expiration Date

Selected Pages
Not a Complete Plan or Manual

[CompanyName]
Visual Weld Inspection Report

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	Size	Location	Comments

Final acceptance of completed work (sign and date)

Inspector Sign and Date	Superintendent Sign and Date

[CompanyName] Welding Personnel Qualification Form

Name:		Job Position:	
Project ID	Project Name	Approval	Approved By
[ProjectNumber]	[ProjectName]	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Review Topics	Project-Related Job Credentials		
	Certification required:	Certifications and expiration dates:	
	Training required:	Training completed and expiration date:	
	Licenses required:	License and expiration dates:	
	Type and length of experience required:	Certifications and expiration dates:	
	Qualifications		
	<input type="checkbox"/> Knowledge of Company quality standards <input type="checkbox"/> Knowledge of Company job responsibilities and authority <input type="checkbox"/> Demonstrated skills and knowledge <input type="checkbox"/> Demonstrated ability <input type="checkbox"/> Demonstrated results		
Qualification Notes:			
Provisional Approval: Action plan for improvement			
Follow-up results and date			

Form N-1 Welding Procedure Specification Prequalification

ANNEX N

AWS D1.1/D1.1M:2010

WELDING PROCEDURE SPECIFICATION (WPS) Yes
PREQUALIFIED _____ QUALIFIED BY TESTING _____
or PROCEDURE QUALIFICATION RECORDS (PQR) Yes

Company Name _____ Welding Process(es) _____ Supporting PQR No.(s) _____ <hr/> JOINT DESIGN USED Type: _____ Single <input type="checkbox"/> Double Weld <input type="checkbox"/> Backing: Yes <input type="checkbox"/> No <input type="checkbox"/> Backing Material: _____ Root Opening _____ Root Face Dimension _____ Groove Angle: _____ Radius (J-U) _____ Back Gouging: Yes <input type="checkbox"/> No <input type="checkbox"/> Method _____ <hr/> BASE METALS Material Spec. _____ Type or Grade _____ Thickness: Groove _____ Fillet _____ Diameter (Pipe) _____ <hr/> FILLER METALS AWS Specification _____ AWS Classification _____ <hr/> SHIELDING Flux _____ Gas _____ Composition _____ Electrode-Flux (Class) _____ Flow Rate _____ Gas Cup Size _____ <hr/> PREHEAT Preheat Temp., Min. _____ Interpass Temp., Min. _____ Max. _____	Identification # _____ Revision _____ Date _____ By _____ Authorized by _____ Date _____ Type—Manual <input type="checkbox"/> Semiautomatic <input type="checkbox"/> Mechanized <input type="checkbox"/> Automatic <input type="checkbox"/> <hr/> POSITION Position of Groove: _____ Fillet: _____ Vertical Progression: Up <input type="checkbox"/> Down <input type="checkbox"/> <hr/> ELECTRICAL CHARACTERISTICS Transfer Mode (GMAW) _____ Short-Circuiting <input type="checkbox"/> Globular <input type="checkbox"/> Spray <input type="checkbox"/> Current: AC <input type="checkbox"/> DCEP <input type="checkbox"/> DCEN <input type="checkbox"/> Pulsed <input type="checkbox"/> Power Source: CC <input type="checkbox"/> CV <input type="checkbox"/> Other _____ Tungsten Electrode (GTAW) Size: _____ Type: _____ <hr/> TECHNIQUE Stringer or Weave Bead: _____ Multi-pass or Single Pass (per side) _____ Number of Electrodes _____ Electrode Spacing _____ Longitudinal _____ Lateral _____ Angle _____ Contact Tube to Work Distance _____ Peening _____ Interpass Cleaning: _____ <hr/> POSTWELD HEAT TREATMENT Temp. _____ Time _____
---	---

WELDING PROCEDURE

Pass or Weld Layer(s)	Process	Filler Metals		Current		Volts	Travel Speed	Joint Details
		Class	Diam.	Type & Polarity	Amps or Wire Feed Speed			

Form N-1 (Front)

ANNEX N

AWS D1.1/D1.1M:2010

Procedure Qualification Record (PQR) # _____
Test Results

TENSILE TEST

Specimen No.	Width	Thickness	Area	Ultimate Tensile Load, lb	Ultimate Unit Stress, psi	Character of Failure and Location

GUIDED BEND TEST

Specimen No.	Type of Bend	Result	Remarks

VISUAL INSPECTION

Appearance _____
 Undercut _____
 Piping porosity _____
 Convexity _____
 Test date _____
 Witnessed by _____

Radiographic-ultrasonic examination
 RT report no. _____ Result _____
 UT report no. _____ Result _____

FILLET WELD TEST RESULTS

Minimum size multiple pass _____ Maximum size single pass _____
 Macroetch
 1. _____ 3. _____ 1. _____ 3. _____
 2. _____ 2. _____

Other Tests

All-weld-metal tension test
 Tensile strength, psi _____
 Yield point/strength, psi _____
 Elongation in 2 in, % _____
 Laboratory test no. _____

Welder's name _____

Clock no. _____ Stamp no. _____

Tests conducted by _____

Laboratory _____

Test number _____

Per _____

We, the undersigned, certify that the statements in this record are correct and that the test welds were prepared, welded, and tested in conformance with the requirements of Clause 4 of AWS D1.1/D1.1M, (_____) *Structural Welding Code—Steel*.
 (year)

Signed _____

Manufacturer or Contractor

By _____

Title _____

Date _____

Form N-1 (Back)