



MANUFACTURING Qualification Audit for OVERHEAD SIGN AND POLE STRUCTURES

NAME OF COMPANY: _____

COMPANY PHONE NUMBER: _____

FACILITY'S AUTHORIZED QUALITY CONTROL REPRESENTATIVE: _____

PERSON OF CONTACT EMAIL: _____

DATE: _____

ADDRESS OF LOCATION: _____

TYPE OF MATERIAL TO BE SUPPLIED (Include Dimensions of Product): _____

ORIGINAL OR FOLLOW-UP VISIT(S): _____

Facility Authorized Representative: _____

DATE: _____

MANUFACTURING QUALIFICATION AUDIT QUESTIONNAIRE

A. MANUFACTURING SPECIFICATIONS AND STANDARDS

Number	Questions	YES	NO	NA	DETAILED INFORMATION
1.	Does the Fabricator/Manufacturer have a copy of latest Caltrans Standard Specifications and are the personnel familiar with these specifications?				
2.	Does the Fabricator/Manufacturer have a copy of the latest AWS D1.1 Code?				
3.	Does the Fabricator/Manufacturer have copies of all the current relevant material specifications (e.g., ASTMs)?				
4.	Does the Fabricator/Manufacturer have personnel that are knowledgeable and experienced with the material codes and specifications?				
5.	Is there a written procedure in place to disseminate specification requirements and changes to appropriate personnel? Note: Provide Copy of Procedure.				

B. Shop Drawings and Drawing Control

Number	Questions	YES	NO	NA	DETAILED INFORMATION
1.	Does the Fabricator/Manufacturer have personnel capable of supervising, evaluating, and coordinating shop drawing preparation and review?				
2.	Do the shop drawings for current work denote materials to be utilized in the final structure?				
3.	Are the approved shop drawings available for production and QC personnel?				
4.	Do the materials and processes specified or indicated on the shop drawings for current work agree with the associated contract documents material requirements for work ongoing in the shop?				
5.	Does the Fabricator/Manufacturer have a written procedure for tracking design drawings as follows. a. Receipt? b. On file? c. Revisions?				
6.	Do the shop plans for current work correspond to the latest revision?				

C. Work Order and Job Control

Number	Questions	YES	NO	NA	DETAILED INFORMATION
1.	Does the Fabricator/Manufacturer have an established job control number and identification system for all work in production or completed?				
2.	Does the Fabricator/Manufacturer have an established identification system in place that clearly denotes material or fabricated components are accepted by QC?				
3.	Does the Fabricator/Manufacturer have an established identification system in place that clearly denotes fabricated components requiring repairs or corrections?				
4.	Is all received correspondence marked with a distinguishable identifying mark?				
5.	Are correspondence files maintained and segregated for each project?				
6.	Is received correspondence a. Stamped received? b. Dated? c. Initialed by personnel responsible for the evaluation and implementation of the technical content?				

D. Material Procurement & Subcontracts

Number	Questions	YES	NO	NA	DETAILED INFORMATION
1.	Are purchase orders or any other types of material procurement forms on file for verification and documentation of the orders?				
2.	Are all materials ordered or procured to the required standards and specifications in the corresponding contract documents?				
3.	Do the Fabricator's/ Manufacturer's procurement documents require that the material suppliers must furnish material testing reports (MTR's)?				
4.	Do the procurement documents state how the material should be marked and identified?				
5.	Are procedures in place to ensure that subcontracted fabrication is ordered to contract requirements?				

E. Material Receiving

Number	Questions	YES	NO	NA	DETAILED INFORMATION
1.	Is there an established written procedure for the receipt of materials and subassemblies?				
2.	Are receiving inspections performed on all incoming materials and subassemblies?				
3.	Are purchase orders or any other types of material procurement documents available to the receiving inspector to facilitate confirmation of compliance?				
4.	Are materials and subassemblies verified for the following: a. Proper grade of material? b. Proper material markings and identification? c. Proper material dimensions? d. Compliance with dimensional tolerances? e. Heat numbers on material match heat numbers on corresponding mill certificates? Note: Provide verification (QC Notes).				
5.	Are the received materials documented for: a. Acceptance or rejection of nonconforming materials and subassemblies? b. Corrective actions taken to deal with correctable nonconformities observed during the receiving inspection?				
6.	Are acceptance standards and acceptance tolerances available for reference at the receiving inspection station?				
7.	Does the Fabricator/Manufacturer have a material identification system to assure control of materials of different grade and size (as applicable)?				
8.	Does the Fabricator/Manufacturer segregate controlled materials by project?				
9.	Does the Fabricator/Manufacturer have mill test reports (MTR's) for all material currently in fabrication?				

F. Materials, Equipment/Facilities, Handling and Storage Procedures

Number	Questions	YES	NO	NA	DETAILED INFORMATION
1.	Does the Fabricator/Manufacturer have adequate equipment to fabricate the proposed items? Note: Attach list of the available equipment.				
2.	Are MTR's traceable to stored or stocked material?				
3	Are materials stored or stocked so as to prevent damage to the raw materials or final fabricated pieces?				
4.	Are the stored or stocked materials clearly marked or identified?				

G. Welding & Welding Consumables

Number	Questions	YES	NO	NA	DETAILED INFORMATION
1	Are authorized welding procedures readily available or posted near all welding machines?				
2	Do welders understand which WPS is to be used to produce each specific weld?				
3	Are welded structures and specific welds traceable to the welder(s) or welding crew that completed the job?				
4	Does the Fabricator/Manufacturer have and properly maintain appropriate equipment for preheat and interpass heating?				
5	Do QC personnel monitor maximum interpass and minimum WPS preheat temperatures utilizing appropriate and calibrated equipment?				
6	Are flame cut edges inspected by QC inspectors to verify compliance with the latest AWS D1.1 code requirements?				
7	Do QC inspectors verify and document joint fit-up of each joint before welding is permitted?				
8	Do QC inspectors verify and document the utilization of WPS's?				
9	Are meters and other devices used to record or display welding variables checked for accuracy?				

10	Is the equipment used for verifying meters and other devices certified annually?				
11	Are welding consumables stored in accordance with the latest AWS D1.1 code, including exposure time of low-hydrogen electrodes?				
12	Are welding consumables at the workstation protected from contamination and damage?				
13	Are manufacturer certification reports on file and available for welding consumables?				
14	Does the facility have a procedure for start and stop points for welding handholes?				

H. High-strength Bolting: (Ignore if no bolting is performed at the facility)

Number	Questions	YES	NO	NA	DETAILED INFORMATION
1.	Are copies of the current RCSC and all appropriate ASTM standards available?				
2.	Does a written procedure exist for sampling, testing, and approving high strength fastener components prior to use by the Fabricator/Manufacturer?				
3.	Does the Fabricator/Manufacturer have copies of all required test reports for fastener components (i.e., according to requirements in appropriate ASTM specifications)?				
4.	For each fastener component, does the Fabricator/Manufacturer submit samples for testing by Caltrans? Note: Provide supporting CALTRANS documentation				
5.	Does the Fabricator/Manufacturer have manufacturer's installation instructions for tension control (TC) bolts and direct tension indicators (DTIs)?				
6.	Are written procedures available to conduct high-strength bolting: a. Installation verification tests? b. Rotational capacity test? c. Job inspection torque determination? d. Long and short bolt testing?				

8.	Does the equipment on hand for high-strength bolting, include: a. Bolt tension measuring device with appropriate bushings? b. Set of tapered feeler gages for inspecting DTIs? c. Torque wrench with dial or digital readout? d. Pneumatic or electric wrench with a positive mechanism that activates when proper tension is reached?				
9.	Has the contractor's bolting equipment (torque wrench, calibrated wrench, bolt load meter, torque multiplier) been calibrated within the past year using equipment traceable to NIST standards?				
10.	If the turn-of-nut installation procedure is being used, is the match-marking procedure understood and properly utilized? Note: Demonstrate Training and Experience of Individual(s).				
11.	Does the paint to be used on faying surfaces comply with sections 59-2.01A(3)(a) and 59-2.01B(1) of the Standard Specifications? Note: Provide a copy of certification per section 59-2.01A(3)(a).				
12.	Are procedures available to ensure that hot-dip-galvanized faying surfaces are flat and free from runs or globs?				
13.	Will bolt tension of all completed bolted joints be inspected and documented using the arbitration method of the RCSC Specification?				
14.	Are all fastener components properly stored and handled to ensure that: a. Components are covered and protected from moisture? b. Unused components are returned to their original containers at the end of each shift? c. Different lots are stored separately to maintain integrity between lots?				
15.	Does the Fabricator/Manufacturer use drill templates with hardened bushings when drilling bolt holes?				

I. Coating Process: (Ignore if no Coating is performed at the facility)

Number	Questions	YES	NO	NA	DETAILED INFORMATION
1.	Are the facilities and equipment suitable for performing cleaning, painting, or galvanizing?				
2.	Does a written procedure exist that addresses: a. Measuring and recording temperature? b. Measuring and recording humidity? c. Measuring and recording wet film thickness? d. Measuring and recording dry film measurements?				
3.	Are the facilities and equipment suitable for performing galvanizing in conformance with appropriate ASTM specifications?				
4.	Are thickness measurements of galvanized surfaces performed and documented?				
5.	Does a written repair procedure exist for repairing galvanizing holidays?				

J. Quality Control & Quality Control Inspectors

Number	Questions	YES	NO	NA	DETAILED INFORMATION
1	Does the Fabricator/Manufacturer have a written job description and an organizational chart that reflects its commitment to quality?				
2	Does the Fabricator/Manufacturer verify subcontractor's qualifications?				
3	Does the Fabricator/Manufacturer have current certifications and eye examinations for all inspection personnel?				
4	Does the Fabricator/Manufacturer maintain documentation readily available on file of the calibrations performed on NDT equipment utilized in the facility by QC personnel or subcontractors?				
5	Does the Fabricator/Manufacturer maintain documentation for all QC testing?				

6	Do QC inspectors have sufficient equipment to adequately perform their tasks: a. Tape line? b. Calipers? c. Weld gages? d. Magnifying glass? e. Multimeter? f. Paint gages? g. Flashlight? h. Preheat & interpass temperature measuring and testing devices? Mirrors?				
7	Does the Fabricator/Manufacturer have written procedures for: a. Minor repairs? b. Major repairs? c. Documentation for Re-inspection of repairs?				
8	Do QC personnel mark or otherwise indicate clearly on the components when the following checks are completed and the disposition of their findings: a. Joint fit-up? b. Welding parameters? c. Final visual inspection completed? d. NDT completed (if required)? e. Confirmation of defect removal prior to repair welding (if required)? f. Dimensions of fabricated component? Fabricated structure or component verified for compliance with contract documents?				
9	Are QC personnel aware of and familiar with the QC requirements?				
10	Does the Fabricator/Manufacturer maintain a QC program that is independent from production?				

11	Do QC inspectors have the responsibility of informing line foreman or superintendent when observing any non-conforming work, processes, or performances?				
12	Is QC personnel given sufficient authority to stop work to prevent unacceptable work from proceeding?				

K. Completed Member Storage and Final Inspection

Number	Questions	YES	NO	NA	DETAILED INFORMATION
1.	Does the Fabricator/Manufacturer understand that Caltrans Inspection requests procedures?				
2.	Is the Fabricator/Manufacturer aware of the paperwork requirements for completed products? Describe.				
3.	Does the Fabricator/Manufacturer have a designated location where material receives final inspection?				
4.	How are completed members for Caltrans properly stored to prevent damage?				
5.	Does the Fabricator/Manufacturer understand the Caltrans material/products release tags?				