

SECTION III

Responsibilities of Caltrans Quality Assurance Person

1. Primary Responsibility

The primary responsibility of a QA inspector is to insure that the materials and workmanship provided by the contractor meet the requirements of the applicable specifications. The QA inspector is required to verify that all specifications, codes, and special provisions requirements are met and that the contractor's QC reports are in order. The QA inspector shall make random field inspections as a means to accomplish satisfactory QA confidence. Towards the achievement of this objective, the following activities shall be performed on a regular basis :

Schedule daily/weekly meeting times with contractor's QC personnel to monitor job progress and ensure contractors QCP is in effect.

Review all QC reports, weld documentation, and NDT certifications to ensure continued compliance.

Perform random review of radiographs to insure specification compliance. METS assistance at Sacramento is available.

Perform field verification inspections. A minimum of one inspection per location or one inspection per hundred field welds will be desirable.

Document all reported and discovered non-conformance issues and contractor's proposed solutions.

Generate QA inspection reports to be turned over to the engineer in the time frame agreed upon.

To assist the QA inspectors in the performance of the above functions, a **Field Inspection Procedure** with the relevant forms has been included in Appendix A . The QA inspector is required to fill out these forms, as applicable, during every field inspection, and disseminate the same to the engineer and all other impacted personnel.

2. Specification Issues.

2.1 It is not the function of the contractor nor the QA personnel to decide issues of materials or design. These issues have been previously decided by the specification, the design requirements, the referenced codes, or will be addressed

by the engineering staff as needed. Should a specification problem be brought to your attention, notify the engineer in writing as agreed.

2.2 The contractor must build the product as specified. The QA inspector insures that the product is built as specified by reviewing procedures, qualifications, technique, and documentation. An amount of field verification as determined by the METS Section Chief and the engineer is necessary. Any deviation from the requirements of the specification must be thoroughly investigated and approved in writing by the engineer, prior to implementation.

APPENDIX A

Field Inspection Procedure

For each inspection there will be a check list to assist the inspector in covering all the areas necessary to achieve a complete Quality Assurance program. The following is a list of forms.

- 1.) Spec. Review: This form will be used to make the Caltrans Engineer and the METS Inspector aware of all required specifications and Testing
A review of the contractors Quality Control and welding paper work.
- 2.) Prejob: This is a record of the meeting with the Prime contractor, Quality control, the Welding contractor, and Testing company.
A review of the contractors responsibility for Quality Control
A review of the Quality Control Inspectors duties and responsibilities.
A review of Nondestructive testing requirements and the necessary documentation.
- 3.) Daily Report: This a record of the METS Inspectors Quality assurance on the Job.
A review of the Quality control inspection reports.
A record of any interaction with Caltrans Personnel
A record of any interaction with the Contractors personnel
A record of any verification inspection and nonconformance.
- 4.) Nonconformance: This is a record of Unacceptable work.
Type of problem (Welding, Fitting, Procedural, etc.)
List of locations
How was the unacceptable work discovered.
Who was notified and when.
What is proposed to rectify the problem.
Each type of nonconformance shall be listed on a separate form.
- 5.) Notification: This form is documentation and notification to the Caltrans Engineer from the METS inspector that the work does not meet the Specification.
This form will be used when the contractors Q.C. has accepted or overlooked unacceptable work.
A request that the work in question be reinspected.
A request for a written explanation from the Q.C. inspector.

Quality Assurance for field welding

Caltrans Quality Control and specification review

Special Provisions

List all references to welding (Section and Paragraph) and brief description
 Highlight all references to other Specifications

1. _____
2. _____
3. _____
4. _____
5. _____

Standard Specifications

List all references to welding (Section and Paragraph) and brief description
 Highlight all references to other Specifications

1. _____
2. _____
3. _____
4. _____

AWS (Welding and Nondestructive Testing)

Code: **D-1.5 (Bridges)** _____ **D-1.4 (Reinforcing)** _____ **D-1.1 (Structural)** _____

- 1.) **Obligations of the Contractor** (Section ____ Paragraph ____)
- 2.) **Inspection Personnel Qualifications** (Section ____ Paragraph ____)
 Qualifications of Welding Inspector. (Review documentation)
- 3.) **Nondestructive Testing** (Section ____ Paragraph ____)
 Type of test required: RT ____ UT ____ MT ____
 Extent of Testing (Section Paragraph ____)
- 4.) **Welding Procedure Specifications** (Section ____ Paragraph ____)
 (PQR) Procedure Qualification Record _____
 (WPS) Welding Procedure Specifications _____

5.) **Welder Qualification** (Section ____ Paragraph ____)

Name	Tests Required	Positions
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Quality Assurance for Field Welding

Welding and Inspection Q. C. / Q. A. Meeting

This meeting shall take place prior to the start of the job to assure the contractor will be in conformance with the specifications. A representative from the Prime contractor, the approved welding inspector, the Welding contractor, the personnel performing nondestructive testing, the Caltrans Engineer, and the METS inspector should be present.

All parties involved in inspection or testing shall have copies of all required specification. This should be verified by asking each individual attending the meeting if they have (Special Provisions, Standard Specification, and AWS)

Prime Contractors Representative YES _____ NO _____
 The Welding Inspector Q. C. YES _____ NO _____
 The NDT Inspector YES _____ NO _____

The role of the **Prime Contractor** in assuring quality work is:

1. The contractor shall be responsible for visual inspection and nondestructive testing.
 The contractor is responsible for necessary correction of all deficiencies in materials and workmanship (1.____ Section _____ Paragraph_____)
2. The contractor shall hire qualified and competent personnel to perform inspection and testing
3. The contractor shall schedule nondestructive testing to facilitate attendance by the QA Inspector when requested by the Engineer.

The role of the **Quality Control Inspector** is:

1. Review welding procedures and welder qualification to assure conformance to the specification.
2. Perform inspection prior to assembly, during assembly, during welding and after welding as specified in AWS and additionally as necessary to assure that materials and workmanship conform to the requirements of the contract.
3. The Inspector shall record the locations of inspected areas and the findings of all nondestructive tests, together with detailed descriptions of all repairs made.

The role of the **NDT Technician** is:

1. The Inspector shall identify with a distinguishing mark or adequate document control as approved by the Engineer all parts or joints that the technician tested and approved.
2. The technician shall perform nondestructive Testing in accordance with all applicable Specifications.
3. The technician shall approve satisfactory welds, or reject unsatisfactory welds and report the results to the contractor in writing the same day.

All parties attending meeting :

Print Name	Signature	Date
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

METS INSPECTOR FIELD REPORT

Contract # _____ Date _____
Job Name _____ Report # _____
Company Name, Address _____ CWI name _____
Arrival Time _____ Departure Time _____ CWI there? _____

Inspected CWI reports _____

Checked rod ovens _____, Electrodes to specification _____, Weld procedures _____, Welder Qual _____

Joint fitup _____, Mill reports _____,

Item Inspected _____ Location _____

Summary of discussions with Contractor/Caltrans personnel

Discrepancies noted

Corrections to be made by

Reported to RE

Signature

Quality Assurance for field Welding

Nonconformance Report

Contract Number _____ Date _____

Type of Problem: Welding _____ Fitt-up _____ Procedural _____ Other _____

Description _____

Location _____

Who found the problem ? _____

Who was notified and when ? _____

Was the Caltrans Engineer notified ? _____

Name of the Quality Control Inspector _____

Was the Quality control Inspector aware of the problem ? _____

What is the Contractor proposing to correct the problem ? _____

What is METS recommendation _____

Print METS Inspectors Name _____

Title _____ Signature _____

Quality Assurance for Field Welding

Notification of Nonconformance

Contact Number. _____ **Date** _____

Description of nonconformance: _____

Specification reference. Spec. _____ Section _____ Paragraph _____

Draw detail below:

Include dimensions, label areas, and highlight the problem areas with circles or arrows.

The METS Inspector shall notify the Caltrans Engineer of nonconformance as soon as possible. This report is for Caltrans Personnel only and used to help the Engineer assess the problem and the effectiveness of the contractors Quality Control. If it is determined that the Quality Control is not sufficient to assure that the materials and workmanship conform to the requirements of the Specification the Engineer shall request an explanation in writing from the Prime contractor. When unacceptable work is found by the Quality Assurance Inspector (METS) this should be considered evidence that the Quality Control is not sufficient. If it is determined that the Q.C. Inspector is not qualified based on the fact that he does not recognize unacceptable work the Engineer shall have the individual responsible removed and replaced.

METS Inspector _____ Signature _____