

Welding Quality Control Plan (WQCP) Requirements in Accordance with “Welding Quality Control”

When required in contract documents, the following items specific to the project shall be included in the Welding Quality Control Plan (WQCP). The WQCP shall be divided into the designated sections with each revision and addendum clearly annotated and numbered as shown below. Each welding and NDT firm shall have separate sections for each firm.

Organization

1. The name of the welding firm.
2. Name of Welding QCM hired by Contractor, if applicable.
3. Name of Quality Control Inspection Firm hired by Contractor, if applicable.
4. Name of NDT Firm hired by Contractor, if applicable.
5. Organizational chart showing the QCM, all subcontractors performing welding, QC firms and personnel, and NDT firms and personnel.

Qualifications / Certifications

6. Copy of AISC Certification, if applicable.
7. Name, qualifications, and documentation of certifications for the following individuals:
 - i. Welding QCM.
 - ii. QC Inspectors (CWIs)
 - iii. Assistant QC Inspectors (CAWIs)
8. A master list of qualified welders that will document the welders and welding operators name, ID, the qualified welding process, welding position, and the date for each individual qualification and person qualified.
9. The written description of the Contractors process for maintaining and providing the Engineer a current master list of qualified welders and welding operators that documents the names of each welder with the process, position, and date qualified as described in item “8” above.
10. Documentation of all certifications for welders, welding operators, and tack welders for each welding process, position and the joint detail used. Certifications shall list the filler metals used, test position, base metal and thickness, tests performed, and the witnessing authority (3rd party CWI). Documentation shall be approved by the Engineer prior to any welding performed by the welder or welding operator.



QC Procedures

11. The methods and frequencies for performing all required visual inspections and documentation by which continuous visual inspection will not lapse for a period exceeding 30 minutes.
12. A written description of the system and method of documentation the contractor will use for the identification and tracking of all welds, NDT, any required repairs, and re-inspection of non-conforming welds. The contractor's system shall include provisions for permanently identifying each weld and the person who performed the weld, WPS and parameters used, NDT, inspection, and repair. WPS parameters include amps, volts, travel speed, preheat and Interpass temperatures.
13. Copies of the Quality Control forms to be used to include certificates of compliance, daily production logs, daily reports, weld repair tracking logs and visual inspection report forms.
14. The methods, procedures, and log to track rejected lengths of weld by welder, position, process, joint configuration, and piece number.
15. Standard procedures for identifying members distorted by welding and monitoring methods for straightening members distorted by welding.
16. Fracture Control Plans which are applicable to the welding being performed.

WPS and PQR

17. Prequalified Welding Procedure Specifications (WPS), if applicable.
18. Documentation, when applicable, of Procedure Qualification Record (PQR) tests within the allowable period of effectiveness including all worksheets.
19. Non-prequalified Welding Procedure Specifications (WPSs) supported by PQR testing.
20. Documentation of the filler metal, flux, filler metal flux combination, and shielding gas certifications to be used in the work and documentation of manufacturer's recommended operating ranges.

NDT Other Than Visual Procedures

21. Written Practice of the NDT inspection personnel or firm.
22. Name of certifying authority and outside Level III, if applicable.
23. Names, qualifications, and documentation of certifications of NDT personnel to be used to include level of certifications and expiration date.
24. List of NDT equipment, calibration procedures, frequencies and current qualification/calibration documentation of equipment to be used.



25. Procedures, methods, and frequencies for performing all required NDT as required by the contract documents to include minimum amounts required.
26. Code of Safe Practices when Radiographic Testing (RT) is performed.
27. Copies of NDT report forms to be used.

After final authorization of the WQCP, amended WQCP, or addendum, the Contractor shall submit 7 copies to the Engineer of the authorized documents. A copy of the Engineer authorized document shall be available at each location where welding is to be performed.

It is expressly understood that the Engineer's authorization of the Contractor's WQCP shall not relieve the Contractor of any responsibility under the contract for the successful completion of the work in conformance with the requirements of the plans and specifications. The Engineer's authorization shall not constitute a waiver of any requirement of the plans and specifications nor relieve the Contractor of any obligation thereunder; and defective work, materials, and equipment may be rejected notwithstanding authorization of the WQCP.

