

SECTION 01210 - QUALITY CONTROL

(Follow all instructions and make all edits with "Track Changes" turned on. This Section is not published in the Oregon Standard. If there are no instructions [purple text] above a subsection, paragraph, sentence, or bullet, then include it in the Project, unless the item(s) that are included in the subsection, paragraph, sentence, or bullet are not required on the Project and then they should be deleted. In general do not re-number or re-letter subsections when item(s) are deleted. Delete all purple text before preparing the final document. All other modifications to this Section will require ODOT Technical Resource and State Specifications Engineer approval.)

Section 01210, ~~which~~ is not a Standard Specification and, is included in this Project by Special Provision.

Description

01210.00 Scope - In addition to the requirements of Section 01201, Section 01215, Section 01220, Section 01235, Section 01240, Section 01245, Section 01260, Section 01270, Section 01280, Section 01285 create and execute a Quality Control (QC) Plan to ensure that all Quality Critical Elements (QCE) of Work conform to the Contract Documents, and providing Quality Control Specialist(s) (QCS) to execute the QC plan according to the following Specifications.

For the purposes of all Work related to cathodic protection, QC is understood to refer specifically to the QC for cathodic protection.

01210.01 Submittals - Submit the QC Plan according to 00150.37 at least 21 Calendar Days before QCE Work begins. At a minimum, include:

- The names of the QCS(s).
- A list of all Work items and Hold Points. Identify all QC tests, pass/fail criteria as stated in the Specifications, and the names of personnel who will perform and witness the test. Include a checklist clearly outlining the Work flow for the QCS to follow.
- A copy of each form ~~that will be~~ used to report QC inspection and test data to the Agency.

Following each QC inspection and test, submit all inspection and test data according to 00150.37.

Labor

01210.30 Quality Control Specialist(s) - Provide Quality Control Specialist(s).

~~Provide Each~~ QCS ~~must be~~ qualified to inspect QCE Work for defects. The Engineer will determine if the QCS is qualified to perform the Work based on their familiarity with all cathodic protection QC test methods and by experience in performing the specified Work. Each QCS ~~must be~~ is required to be approved by the Engineer prior to performing quality control Work.

Multiple QCSs may be designated. A QCS need not fill this role for all QCEs as long as each QCE has at least one QCS responsible for it.

The QCS is responsible for:

- Reviewing all Work for defects and ensuring defects are corrected prior to requesting verification testing and inspection
- Witnessing or performing all QC tests and submitting inspection and test data according to the QC Plan
- Establishing Work limits prior to beginning QCE Work or anytime Work limits are broken into smaller areas
- Inspecting Equipment and abrasive daily
- Cooperating with Agency verification testing and inspection
- Stopping Work when test Equipment is not available, and when necessary to ensure that the Work is performed according to the Contract Documents

~~Do not allow~~ ~~the QCS shall not to~~ perform production duties or supervision for any QCE Work ~~for which~~ when the QCS is responsible for quality control.

The QCS will be immediately removed from QCS duties and disqualified from future QCS duties if any quality control failure occurs. Quality control failure includes:

- Three separate occurrences of accepting QCE Work that does not comply with the Contract Documents
- A determination that zinc anode thickness approved by the QCS are later found to be below the minimum or above the maximum thickness values.
- Two separate occurrences of QCS performing production duties when they are designated as the QCS for that QCE Work.
- Two separate occurrences of the QCS failing to perform any duties as specified.

Stop QCE Work if the QCS responsible for it is no longer employed by the Contractor, a Subcontractor, or is otherwise unavailable. If the QCS will no longer be available, propose a new QCS for approval by the Engineer before resuming the QCE Work in question.

Construction

01210.40 Quality Control Testing and Inspection - Provide QC testing and inspection to ensure compliance of the Work with the Contract Documents. Ensure that defects are corrected prior to requesting verification testing and inspection.

01210.41 Agency Verification Testing and Inspection - Coordinate with Agency verification testing and inspection to provide timely access and ensure a QCS is present.

Provide the Inspector timely access to areas where Work is being performed. Allow adequate time for inspection and testing at each Hold Point. The Engineer will inspect each phase of the Work. If the Engineer finds a phase conforms to the Specifications, the subsequent phase of Work may proceed.

The following Hold Points are defined for Agency verification testing and inspection:

- After the Work platforms and containment Structures have been installed and accepted according to Section 00253.
- After marking of near-surface metals, before removal of near-surface metals according to Section 01215
- After removal of near-surface metals, before patching according to Section 01215
- After patching of near-surface metals areas according to Section 01215
- After marking of corroded reinforcing bars according to Section 01220
- After preparation for reinforcing bar repairs, before splicing according to Section 01220
- After completion of splicing, before patching according to Section 01220
- After patching of reinforcing bar repair areas according to Section 01220
- After marking of damaged concrete according to Section 01235
- After removal of damaged concrete, before installing forms according to Section 01235
- After installation of forms, immediately before pumping patch concrete according to Section 01235
- After form removal according to Section 01235
- After surface finishing according to Section 01235
- After conducting potential surveys according to Section 01240
- After preparation, before installation of reference cells according to Section 01240
- After installation of reference cells according to Section 01240
- After continuity checks, before continuity welding according to Section 01245
- After continuity welding, before patching according to Section 01245
- After patching of continuity weld areas according to Section 01245
- After completion of anode terminal installation according to Section 01260
- Before abrasive blast according to Section 01260
- After abrasive blast according to Section 01260
- Before anode application according to Section 01260
- After anode application according to Section 01260
- After installation of conduits and wiring according to Section 01270
- After fabrication of cabinets, before shipment of cabinets according to Section 01285
- After installation of cabinets according to Section 01285

Measurement

01210.80 Measurement - No measurement will be made for Work performed under this Section.

Payment

01210.90 Payment - The accepted quantities of Quality Control Work will be paid for at the Contract Lump Sum amount for the item "Quality Control Plan".

Payment will be payment in full for furnishing and placing all Materials, and for furnishing providing all Equipment, labor and Incidentals necessary to complete the Work as specified.