

## Part 512 – Construction

### Subpart D – Quality Assurance Activities

#### 512.30 General

A. The requirements for construction quality assurance on Federal and non-Federal contracts are outlined in the general and special provisions of the contract and the quality assurance plan (QAP). The construction specifications and contract clauses outline the duties and responsibilities of the contractor's quality control (CQC) program.

B. QA activities may vary in accordance with the complexity and hazard class of the engineering measures being constructed. QAPs will be prepared and included in the design folder during the design phase with input from construction engineers and the State conservation engineer (SCE).

#### 512.31 Definitions

A. Quality Control.—Activities performed by the contractor to document that the work installed meets the minimum requirements of the contract. CQC required by “Construction Specification (CS) 94, Contractor Quality Control” in Title 210, National Engineering Handbook (NEH), Part 642, Chapter 2, may be a bid item if using sealed bids and must be included in any negotiated construction contract.

B. Quality Assurance (QA).—Activities performed by or for the owner, including observing construction methods and procedures, reviewing the CQC testing activities and test results, conducting periodic material testing to evaluate the CQC system, and other measures to ensure compliance with the contract provisions. The duties and responsibilities for this activity are outlined in the QAP for the specific project being installed. NRCS should only perform active QA duties on a CLO contract if NRCS QA is included in the project agreement. Monitoring and surveillance of CQC and QA on a CLO contract must be performed regardless of whether NRCS QA is included in the project agreement.

C. Quality Assurance Plan (QAP).—This plan defines NRCS QA duties. A QAP will outline the technical and administrative expertise required, identify the individuals with that expertise, outline the frequency and timing of technical assistance (TA), estimate the contract completion date, and be approved by all responsible supervisors and the appropriate line officer. QAPs are required on all Federal and CLO contracts.

#### 512.32 QA Procedures

A. States may develop QAP templates for engineering conservation practices with engineering job approval classes I to V. These QAP templates must provide the minimum QA needed for proper installation. The responsible line officer and the responsible technical staff person must review the QAP template to determine the adequacy and availability of the technical resources required. This determination will be evaluated and established prior to practice layout. The line officer must assign this responsibility to the appropriate personnel and provide adequate time to ensure quality installation.

B. QAPs for engineering job classes VI to VIII will be developed per project and will be signed by the SCE and State Conservationist. QAPs will be prepared by the design engineer and supplemented by the SCE who has knowledge of individuals with QA technical skills and are available for appointment for the project. Under no circumstances will certification stating that work has been

accomplished in compliance with the drawings, specifications, and other contract provisions occur without a physical review and documentation of the work performed.

- (1) Continuous QA is required for construction activities where the quality of work cannot be verified by intermittent observations. Continuous inspection is also required for work that cannot be readily removed and replaced if it fails to meet the requirements of the contract.
- (2) Intermittent or periodic QA may be adequate for certain phases of project activities depending on the complexity of the installation and the potential impacts upon the health and welfare of the public.

### **512.33 Inspection of Materials**

A. Construction materials, including prequalified materials, must be inspected as part of the CQC program prior to installation. Documentation of verification of the material certification must be recorded in the project job diary, conservation assistance notes, contract records or on the as-built drawings.

B. NRCS will only perform QA functions at factories, locations of fabrication, or other sources of supply if the SCE determines this to be necessary.

C. QA of materials compliant with specifications or standards may include—

- (1) Field verification of the CQC certification of materials, such as the size, dimensions, standards (ASTM International, American Concrete Institute (ACI), American Water Works Association (AWWA)), other standards and specifications, or some combination of these.
- (2) Verification of material sampling and testing and specification compliance submitted by the contractor.