

ATTACHMENT D
ORDER NO. R5-2010-XXXX

ADDITIONAL GUIDANCE FOR CQA PLANS AND CQA REPORTS

FOR
TEICHERT CONSTRUCTION COMPANY AND STEWART WELLS
NYACK PORTABLE BATCH PLANT AND CONCRETE RECYCLING SITE
PLACER COUNTY

A detailed Construction Quality Assurance (CQA) Plan shall be submitted prior to construction in accordance with the schedule set forth in the Provisions of the waiver. A CQA Report shall be submitted prior to discharge in accordance with the schedule set forth in the Provisions of the waiver. All plans and reports must be prepared under the direction of, and signed by, a certified engineering geologist or registered civil engineer licensed by the State of California.

SECTION 1 – Construction Quality Assurance Plan

The CQA Plan shall be prepared in accordance with U.S. EPA Guidance (*Technical Guidance - Construction Quality Assurance for Hazardous Waste Land Disposal Facilities [EPA/530-(S)SW-86-03/Feb 1987]*) and shall contain the following minimum information:

A. Introduction

1. Purpose and scope of the CQA Plan
2. Description of all systems and improvements constructed under the CQA Plan, including (as applicable):
 - i. Excavations and Fills
 - ii. Liner subgrade
 - iii. Geomembranes
 - iv. Geotextiles
 - v. Geonets
 - vi. Leak detection systems
 - vii. Concrete structure base materials (protection of underlying geosynthetics)
 - viii. Reinforced concrete sumps and pavement (protection of underlying geosynthetics)
 - ix. Concrete materials, including any permeability-reducing admixtures
 - x. Concrete coatings
 - xi. Elastomeric caulking and sealing agents
 - xii. Any other item whose construction or operation is integral to, or may affect, the integrity of the waste containment system.

B. Roles, Responsibilities, and Coordination

1. Define the roles and responsibilities of all parties to the work to be performed under the CQA Plan, including the project owner, the design engineer, the general contractor, any subcontractors, geosynthetic materials manufacturer(s), geosynthetics installer, the CQA consultant, other manufacturers or vendors, and testing laboratories.
2. Define the qualifications, roles, and responsibilities of the CQA Team, including the CQA Project Director, CQA Field Manager, and CQA Field Monitors.

3. Define the reporting, communications, meetings, and decision-making process that will be used to ensure full implementation of the CQA Plan.

C. CQA Program Description

For all of the systems and improvements listed in A.2 above, provide the following information as applicable:

1. Manufacturing
 - i. Raw materials quality control
 - ii. Production quality control
 - iii. Conformance testing
 - sampling procedures
 - conformance test procedures
 - conformance test results and acceptance criteria
2. Shipping, Handling and Storage Procedures
3. Installation
 - i. Preparation for installation and acceptance of prior work that bears on the performance of the system or improvement to be installed
 - ii. Installation procedures to ensure compliance with specifications
 - iii. Inspection procedures to ensure compliance with specifications
 - iv. Testing procedures to ensure compliance with specifications
 - destructive testing
 - non-destructive testing
 - v. Procedures for interpreting test results; identifying damage or substandard installation; and selecting and implementing mitigation measures
 - vi. Procedures for testing and acceptance of repaired or replaced items
4. Requirements for CQA Documentation
 - i. Field notes forms
 - ii. Inspection forms
 - iii. Test result forms
 - iv. Record (as-built) drawings and specifications

SECTION 2 – Construction Quality Assurance Report

The CQA Report must provide complete documentation of all inspection, testing, and repair or reconstruction that demonstrates the improvements meet the requirements set forth in the construction specifications. In addition, the report must also clearly identify, describe, and justify any deviations from the approved CQA Plan.