
Formerly Utilized Sites
Remedial Action Program
(FUSRAP)

Maywood Chemical Company Superfund Site

ADMINISTRATIVE RECORD

Operable Unit 2 - Groundwater

Document Number

GW-014



**US Army Corps
of Engineers®**
New York District

Quality Control Plan

FUSRAP MAYWOOD SUPERFUND SITE MAYWOOD, NEW JERSEY

SITE-SPECIFIC ENVIRONMENTAL RESTORATION
CONTRACT NO. W912DQ-13-D-3016 TASK ORDER 001

Prepared for



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**December 2013
Revision 1**

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QUALITY CONTROL PLAN
FUSRAP MAYWOOD SUPERFUND SITE
MAYWOOD, NEW JERSEY

CONTRACT No. W912DQ-13-D-3016
TASK ORDER 0001

Submitted to:

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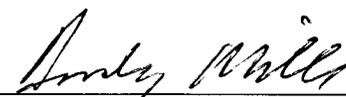
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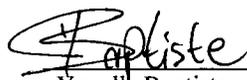
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RECORD OF REVISIONS

Revision No.	Description of Revision	Date
Rev. 0	Transition to new remediation contractor	December 2013
Rev. 1	Revise plan per USACE comments	December 2013

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ABBREVIATIONS, ACRONYMS, FORMULAS, AND SYMBOLS

ALARA	As Low As Reasonably Achievable	MCW	Maywood Chemical Works
APP	Accident Prevention Plan	MHTD	Material Handling Transport and Disposal Plan
ASTM	American Society for Testing and Materials	MISS	Maywood Interim Storage Site
		MFSSP	Master Final Status Survey Plan
BNI	Bechtel National, Inc.	NJ	New Jersey
Cabrera	Cabrera Services, Inc	O&M	Operation and Maintenance
CAR	Corrective Action Request		
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System	PM	Program Manager
		PQCM	Program Quality Control Manager
COR	Contracting Officer Representative	QA	Quality Assurance
CQC	Contractor Quality Control	QC	Quality Control
CQCSM	Contractor Quality Control System Manager	QCR	Quality Control Report
		QCP	Quality Control Plan
CRP	Community Relations Plan	Ra-226	Radium-226
		ROD	Record of Decision
DOE	Department of Energy	RA	Remedial Action
		RFI	Request for Information
ENG	Engineer		
ER	Engineering Regulation	SSHP	Site Safety and Health Plan
FMSS	FUSRAP Maywood Superfund Site	Th-232	Thorium-232
		T&D	Transportation and Disposal
FUSRAP	Formerly Utilized Sites Remedial Action Program	U-238	Uranium-238
		UFP_QAPP	Uniform Federal Policy Quality Assurance Project Plan
GEPP	General Environmental Protection Plan	USACE	U.S. Army Corps of Engineers
IDW	investigation-derived waste		
M&TE	Measurement and Test Equipment	WMP	Water Management Plan

1.0 INTRODUCTION

Cabrera Services, Inc. (Cabrera) is under contract to the U.S. Army Corps of Engineers (USACE) for the environmental restoration of the Formerly Utilized Sites Remedial Action Program (FUSRAP) Maywood Superfund Site (FMSS). The FMSS consists of property owned by the Federal Government, the Stepan Company, and other government, commercial, and private properties in the Boroughs of Maywood and Lodi, and the Township of Rochelle Park, New Jersey (NJ).

The remediation effort will be conducted in such a manner to provide a level of protection to the public and remediation workers consistent with applicable radiation exposure guidelines, and with the objective of achieving as low as reasonably achievable (ALARA) exposure levels.

1.1 Purpose and Scope

The purpose of this Quality Control Plan (QCP) is to ensure that the USACE needs and requirements are met, that applicable industry codes and standards are complied with, and that corporate and professional goals are satisfied.

The objectives of this QCP are to anticipate the specific operating requirements of the project, and to establish procedures to ensure that the construction quality meets technical design specifications and conforms to the requirements of the Task Order.. Specifically, this plan:

- Identifies the project Quality Control (QC) organization and defines each individual's respective authority, responsibilities, and qualifications.
- Defines project communication, documentation, and recordkeeping procedures.
- Establishes QC procedures, including the necessary supervision and tests, to ensure that the work meets applicable specifications and drawings.

This QCP was developed in accordance with the aforementioned contract and Task Order.

- USACE Engineering Regulation (ER) 1180-1-6 *Construction Quality Management* (USACE 1995).
- USACE ER 1110-1-12 *Engineering and Design Quality Management* (USACE 2011a).
- USACE ER 415-1-10 *Construction Contractor Submittal Procedures* (USACE 2012a).

1.2 Layout and Use of this Document

- Section 2.0 of this QCP describes the Cabrera QC Program, management systems, and general requirements for controlling the quality of work products and services. This section also defines requirements for control of accountable documents and records, provides the strategy for assessing the effectiveness and implementation of this plan, and describes how the quality of subcontracted work is to be controlled.
- Section 3.0 discusses the construction test plan to be performed for the remedial action (RA).
- Section 4.0 identifies and describes the anticipated FMSS definable features of work associated with the scope defined in Section 1.6.
- Section 5.0 describes the report preparation process.
- Section 6.0 describes the review and approval of deliverables.
- Section 7.0 identifies references used in the preparation of this QCP.
- Appendix A: Quality Control Forms

The QC program for the sampling and chemical analysis to be performed as part of the RA for the FMSS is presented in the *Uniform Federal Policy-Quality Assurance Project Plan (UFP-QAPP)* (USACE, 2013a)

1.3 General Requirements

For the purposes of this plan and any plan developed through its use, the following terms are used in accordance with USACE guidance:

- QC comprises the measures taken by the contractor to ensure the work performed by the contractor and its subcontractors and suppliers complies with the requirements of the contract. Although the primary objective of QC is to anticipate potential problems, QC measures also include corrective actions. The QC measures are to be adequate to cover all operations, including both onsite and offsite activities, and keyed to the proposed work sequence.
- Quality Assurance (QA) comprises the measures taken by USACE to oversee the work of contractors. QA measures include inspections, verification, audits, and evaluations of materials, workmanship and implementation of the Contractor Quality Control (CQC) system by the contractor.

The QC program defined herein will be implemented for this project by personnel knowledgeable in QC theory and practice, and with adequate and defined responsibilities and authority.

The effectiveness and implementation of the program described herein are to be verified and documented in accordance with the requirements specified in Section 2.5 of this document.

1.4 Project Plans

All work to be performed at the FMSS shall be in accordance with the following documents:

- *Project Management Plan (USACE 2013b)*
- *Remedial Action Work Plan (USACE, 2013c)*
- *,Uniform Federal Policy-Quality Assurance Project Plan (UFP-QAPP) (USACE, 2013a)*
- *Accident Prevention Plan (APP) (USACE 2013d)*
- *Material Handling Transport and Disposal Plan (MHTD) (USACE 2013e)*
- *Master Final Status Survey Plan (MFSSP) with property cluster-specific addendum (USACE 2013f)*
- *Community Relations Plan (CRP) (USACE 2013g)*
- *General Environmental Protection Plan (GEPP) (USACE 2013h)*
- *Water Management Plan (WMP) (USACE 2013i)*
- *Quality Control Plan (QCP)*

1.5 Site Background

The FMSS is located in a highly developed area of northeastern New Jersey in the Boroughs of Maywood and Lodi, and the Township of Rochelle Park. The majority of the remediation activities will be conducted at the Maywood Interim Storage Site (MISS). The MISS is an 11.7-acre lot that previously was part of a 30-acre property owned by the Stepan Company. Remediation activities also will take place to a lesser degree on properties located within a few miles of the MISS. These off-site locations are

known as Vicinity Properties. The U.S. Department of Energy (DOE) began investigating the FMSS and surrounding areas in 1983, and subsequently acquired the MISS from the Stepan Company in 1985. As of 2003, the USACE published the *Final Record of Decision for Soils and Buildings at the FUSRAP Maywood Superfund Site* (ROD) (USACE, 2003a) to address soil and building contamination on the remaining 24 commercial and governmental FMSS properties. The *Final Groundwater Record of Decision, FUSRAP Maywood Superfund Site*. (USACE, 2012b) addresses the remedial action for groundwater contaminated with FUSRAP waste at the MISS and Vicinity Properties. **Figure 1-1** shows the location of the properties comprising the FMSS.

A detailed description of the site, the major properties, background, and history of the FMSS is provided in the *Remedial Investigation Report for the Maywood Site* (DOE 1992) and the *Remedial Design/Remedial Action Implementation Plan for the Maywood Vicinity Properties* (DOE 1995).

1.6 Project Scope of Work

The scope of the FMSS remedial action will include the remediation of the properties in Table 1-1 below and any others identified by the USACE.

Table 1-1: FMSS Property List

FMSS Property ID No.	Properties	Township/Borough
02A	100 Hancock Street	Lodi
02B	80 Hancock Street	Lodi
02C	80 Industrial Road	Lodi
04B	I-80 Westbound Right-of-Way	Lodi
06C	167 NJ Route 17 North	Maywood
06D	239 NJ Route 17 North	Maywood
08A	23 West Howcroft Road	Maywood
09A	149-151 Maywood Avenue	Maywood; Rochelle Park
10A	100 West Hunter Avenue (Stepan Company)	Maywood; Rochelle Park
12B	100 West Hunter Avenue (MISS)	Maywood; Rochelle Park
12C	New Jersey Route 17	Rochelle Park

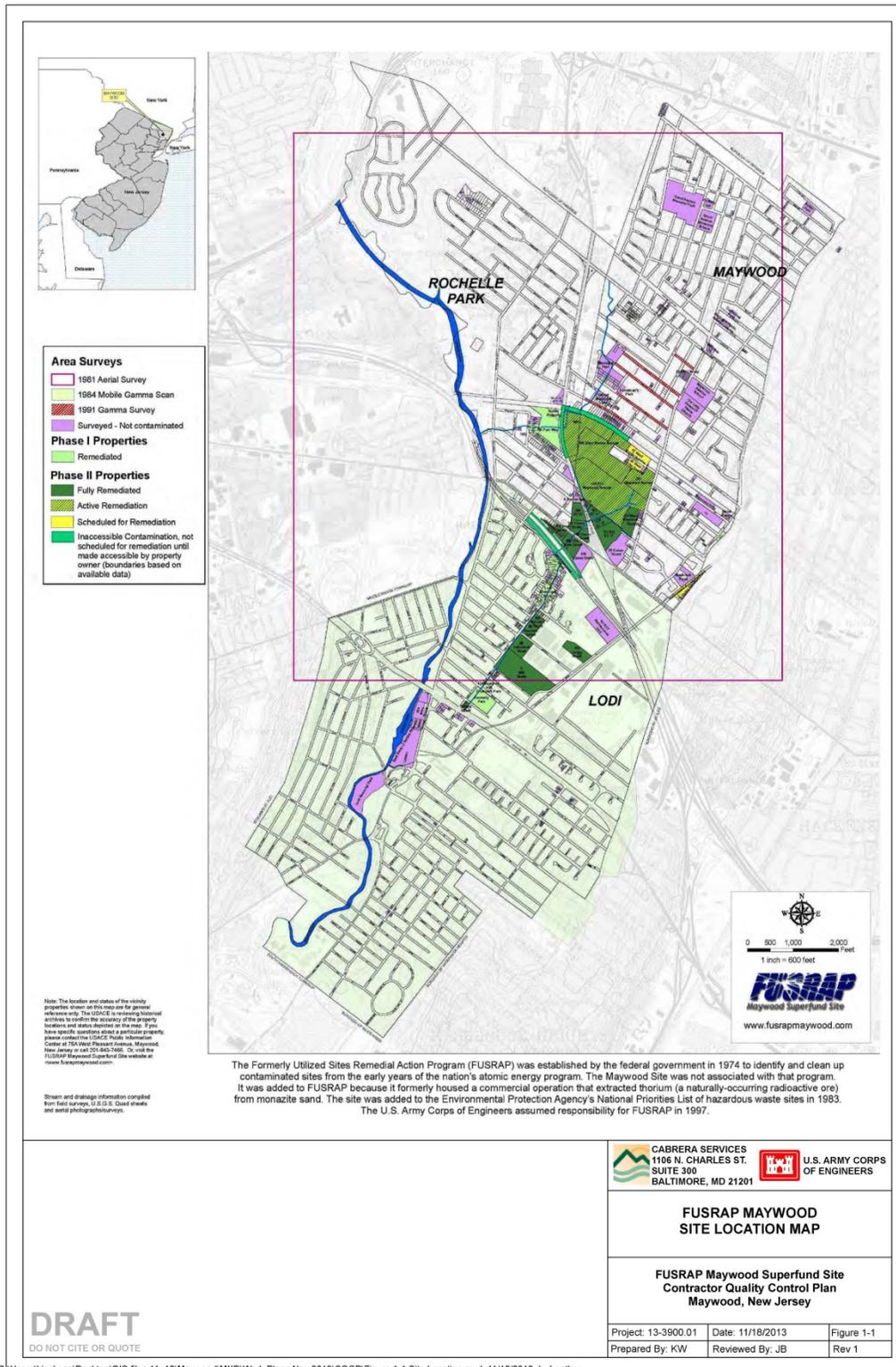


Figure 1-1: Site Location Map

2.0 QUALITY CONTROL PROGRAM

2.1 Project Quality Control Personnel

A central element for controlling quality is to establish a control organization that is independent of those persons actually performing the work. The function of the organization is to implement the structure and duties outlined in the *QCP* prescribing the responsibilities for contract/project-related activities, techniques, and schedules for the performance of appropriate well-documented inspections, testing, and sampling. The organization is responsible for observing, measuring, recording, and documenting the work performed and for controlling the quality by providing timely feedback to the Project Manager and client. Feedback, in the form of documented inspections, tests, or other evaluations, is provided in the form of the Contractor's Quality Control Report (QCR) to obtain approval/disapproval of an activity based on pre-selected standards. The format and content of the QCRs are discussed further in Section 2.3.1. of this Plan.

Project quality will be ensured by means of review and oversight by the Cabrera corporate QC personnel. The primary responsibility of the Corporate Quality Manager is to ensure adherence and compliance to the Corporate Quality Control Program. Personnel responsible for implementing the *QCP* while on site, under the supervision of the QCM, include the Contractor Quality Control Systems Manager (CQCSM) or alternate CQCSM (Alternate).

Quality control personnel shall have the necessary authority, access to work areas, and organizational freedom to:

- Identify quality problems;
- Stop work if non-conformance issues are identified;
- Initiate, recommend, or provide solutions to quality problems through designated channels;
- Verify implementation of solutions; and
- Assure that further processing, delivery, installation, or use is halted or controlled until a nonconforming, deficient, or unsatisfactory condition has resolved.
- An corporate organizational chart showing the lines of authority and reporting relationships of the project personnel is provided as Figure 2-1. The CQCSM or Alternate will ensure that the QC structure of the project *QCP* is effectively implemented throughout the project via the inspection, testing, and documentation requirements presented in this *QCP*.

2.1.1 Project Manager (PM)

The Project Manager (PM) is responsible for evaluating the appropriateness and adequacy of the technical services provided for the project, and for developing the technical approaches and level of effort required to address each task. The PM is also responsible for the day-to-day conduct of work, including integration of input from supporting disciplines, USACE and subcontractors. Specific responsibilities of the PM include:

- Initiating project planning and directing project activities
- Ensuring that qualified technical personnel are assigned to various tasks, including subcontractors;
- Identifying and fulfilling equipment and other resource requirements;
- Monitoring project activities to ensure compliance with established scopes, schedules, and budgets;

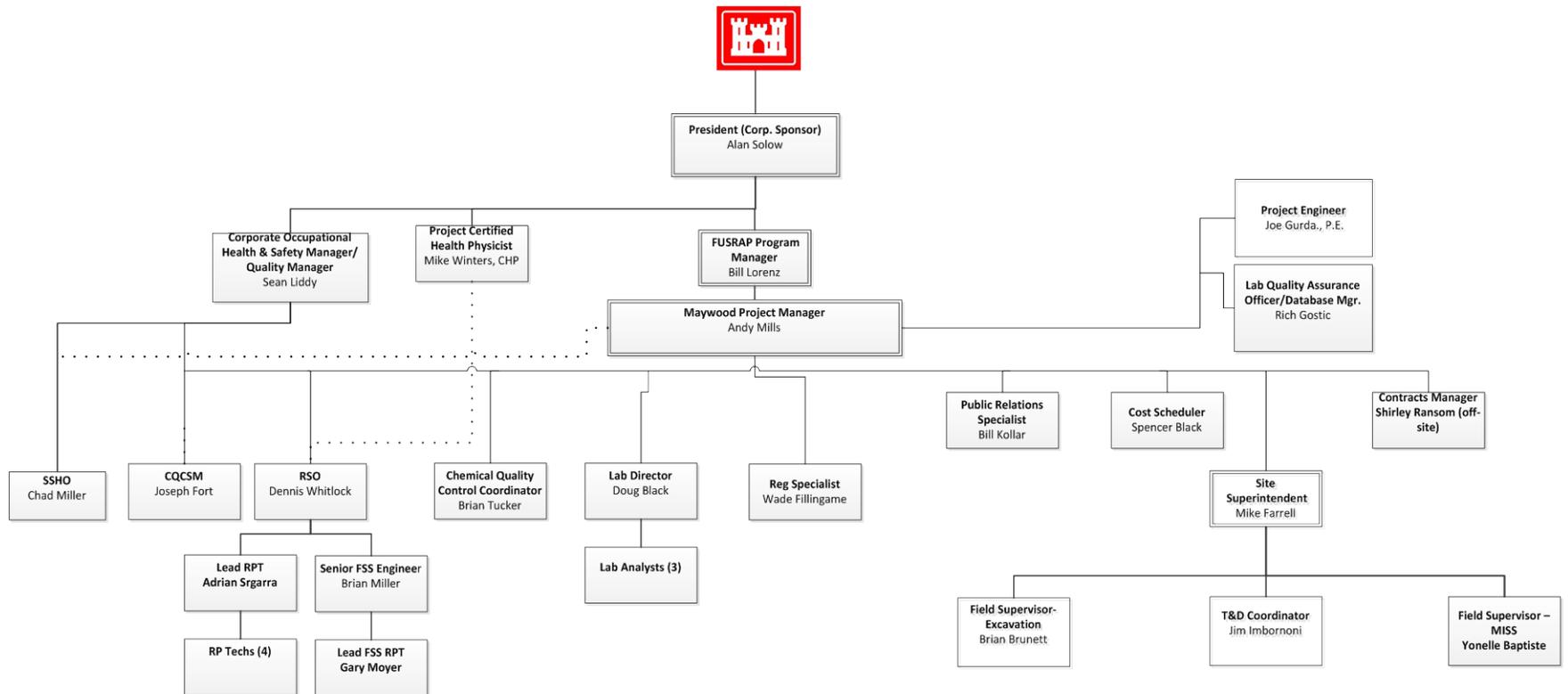


Figure 2-1: Maywood Project Organization Chart

- Ensuring overall technical quality and consistency of all project activities and deliverables; and
- Serving as the primary Point of Contact with USACE.

2.1.2 Corporate Quality Manager

The Quality Manager is responsible for directing planning, implementing and tracking QC activities and maintaining internal communication on QC matters. The Quality Manager will work with the PM, CQCSM, and Independent Technical Reviewers to ensure that established QC procedures are implemented. The Quality Manager, or a designee, will conduct periodic Site and project audits as part of this process. The Quality Manager may conduct periodic audits of on-site procedures, including safety procedures. The duties also include QC task staffing; and ensuring that quality control data evaluation, data verification, and reporting procedures are followed.

2.1.3 Contractor Quality Control System Manager (CQCSM)

The CQCSM will be responsible for day-to-day compliance with the contract plans and specifications, the Remedial Action Work Plan (USACE, 2013c), *QCP*, and other project work plans, including records filing and archiving, and the provision of operational support to the Site Superintendent and on-site personnel. The CQCSM will provide and maintain an effective QC system for all construction activities, monitoring QC activities to ensure conformance with authorized policies, procedures, contract specifications, approved work plan, and sound practices. The CQCSM will also prepare the QCRs and QC checklists, and provide copies of such to the USACE Contracting Officer's Representative (COR) or designee. Resumes, certificates for *Construction Quality Management for Contractors* training, and authorization letters for the QCSM and Alternate CQCSM are provided in Appendix B.

The CQCSM will be on site during remediation. In the event of his absence, a qualified and trained individual will serve as an alternate CQCSM, with USACE's concurrence. The requirements for the alternate will be the same as for the designated CQCSM. On this project, the Waste Transportation and Disposal Coordinator will serve as the alternate CQCSM in the event of the absence of the designated CQCSM.

Duties of the CQCSM include, but are not limited to, the following:

- Implementing the project QCP.
- Initiating or recommending corrective actions.
- Verifying implementation of corrective actions.
- Continuously evaluating the effectiveness of the project QCP.
- Notifying the PM of conditions adverse to quality that cannot be resolved at the project level.
- Monitoring operation activities for compliance with contract requirements.
- Monitoring laboratory testing activities.
- Identifying and reporting nonconforming items, conditions, or activities.
- Directing onsite QC staff.
- Monitoring onsite subcontractors.
- Preparing QC reports as required by the contract.
- Performing and documenting construction inspection activities.
- Monitoring sampling activities.

2.1.4 Site Superintendent

The Site Superintendent reports directly to the PM and is responsible for the overall direction and management of field project tasks associated with completing the remediation work and the restoration construction and related activities at the Site. This includes oversight of field staff and subcontractors and ensuring that procedures for field activities are executed in the proper manner, activities are properly documented, the prescribed scope of work is completed, and communication protocols are followed.

The Site Superintendent is responsible for managing the cleanup activities in accordance with the Remedial Action Work Plan (USACE, 2013b) and supporting project plans. The Site Superintendent will monitor work progress and schedule, advise the PM of variances, and assist in the preparation of work progress schedules, project reports, drawings and required compliance submittals.

2.1.5 QC Staff

QC staff will be assigned as needed to perform QC functions during execution of the project. Responsibilities of the QC staff include oversight and verification that the project is being conducted in accordance with applicable quality criteria, as specified in USACE, Cabrera, or FMSS requirements.

2.2 Three-Phase Control System

To ensure that construction activities comply with the requirements of the specifications, the CQCSM will implement the three-phase QC system. The three-phase control system consists of:

- Preparatory Phase Inspections,
- Initial Phase Inspections, and
- Follow-up Phase Inspections.

These phases are described in the following subsections and will be performed for each Definable Feature of Work. A Definable Feature of Work is a task, which is separate and distinct from other tasks and has separate control requirements. Checklists for the Preparatory and Initial Phases will be included with the QCR prepared by the CQCSM as described in Section 2.3.1. A copy of the checklists and QCR form are included in Appendix A.

2.2.1 Preparatory Phase Inspection

A Preparatory Phase Inspection will be performed prior to commencement of work on each Definable Feature of Work. The Preparatory Phase Inspection will consist of:

- Reviewing of contract requirements;
- Reviewing of specifications and drawings;
- Ensuring all materials and equipment have been tested, submitted and approved;
- Ensuring that provisions have been made to provide required quality control testing;
- Reviewing the APP/SSHP (USACE, 2013d) and Activity Hazard Analyses;
- Discussing the construction methods; and
- Examining the work area to ascertain that materials, equipment, and samples conform to approved submittal data.

USACE's COR will be notified at least 48 hours in advance of each Preparatory Phase meeting. A record of each Preparatory Phase Inspection, including meeting minutes and list of meeting attendants, will be prepared by the CQCSM using the Preparatory Control Worksheet.

2.2.2 Initial Phase Inspection

Initial phase inspection(s) will be performed as soon as approximately 10 percent or more of the Definable Feature of Work has been accomplished. The initial phase will include:

- Reviewing Preparatory Phase Inspection meeting minutes;
- Examining the quality of workmanship;
- Reviewing the results of QC tests;
- Resolving all differences;
- Reviewing the *APP* (USACE, 2013d), including the task-specific Activity Hazard Analysis; and
- Checking the adequacy of controls to ensure full Scope of Work and contract compliance.

USACE's COR will be notified at least 48 hours in advance of each initial phase meeting. A record of each Initial Phase Inspection, including meeting minutes, will be prepared by the CQCSM using the Initial Control Worksheet.

2.2.3 Follow-up Phase Inspection

Daily checks will be made by the CQCSM to ensure continuing compliance with contract requirements, including control testing, until the completion of each Definable Feature of Work. The checks will be documented in the QCRs. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work. The CQCSM will continually refer back to the standards set during the Preparatory and Initial phases.

2.3 Recordkeeping and Reporting

The CQCSM, with assistance from all project staff, is responsible for the creation, distribution, and filing of all records and reports associated with regard to documentation of QC activities. The Resident Management System (RMS) will be used for QC recordkeeping and reporting. RMS is a construction information management system the USACE developed to control construction quality management and control administration.

2.3.1 QCR Report

Cabrera will maintain daily records and will submit reports of QC activities daily. The reports will be factual records that identify the current activities, any unanticipated delays or occurrences, departures from the project work plans, communications with USACE and other stakeholders, regulators or other organizations, and any needed corrective actions. The reports will be submitted to USACE's COR or designee on the QCR form by noon of the next workday following the day of the report. Reports generated for the last day of a week or work period will be provided to USACE at the beginning of the next week or work period or sooner if practical.

The report shall contain a record of activities related to the three-phase QC system. Separate reports for different phases of work may be submitted by the CQCSM or the reports may be consolidated into one report if all QC activities and results are covered and the responsible QC personnel are identified.

In all cases, report or reports will be verified and signed by the CQCSM or Alternate. The verification will contain the statement that all supplies and materials incorporated in the work are in compliance with the terms of the contract except as noted.

The reports will include the following:

- Phase or phases of remediation underway during the time of the report, including a listing of equipment and personnel on site and hours worked;
- QC activities that were taken, with identification of the phase;
- Results of QC activities, including nature of deficiencies observed and corrective actions taken or to be taken;
- Photo-documentation – photography will be used to record pre-remediation conditions, post-remediation conditions, and key activities that occur during the course of remediation. Photos will be taken and stored digitally on the Site computer, and will be printed in color on 8.5 inch x 11 inch sheets (with multiple photos per page) for submittal to USACE in the next business days' QCR.
- Documentation of samples collected with sample locations, including samples for chemical and radiological analysis, and screening. Analytical results, including computations, shall be attached to the report form, as available. A notation shall be made that the test was performed and the approximate date test results will be available where results cannot be completed by the time the report is submitted. Delayed test results shall be submitted with a report form on the date received;
- Quantity of materials received and statement as to acceptability and storage;
- Quantity of waste material identified, excavated, containerized, loaded, and stored;
- Submittals reviewed, by whom, and action taken;
- Other information as applicable to the project, including:
 - Weather conditions;
 - Subcontractor operations;
 - Monitoring materials and equipment upon arrival on site for compliance with work plans, damage during transit, and proper storage; and
 - Job safety evaluations stating what was checked, results, and instructions or corrective actions.

2.3.2 Three-Phase Control Procedures

Compliance with the approved project plans and procedures will be conducted by the QC staff through implementation of the three-phase control process described in Section 2.2. This process provided assurance that project activities comply with the approved plans and procedures. In addition, procedures ensuring cost effectiveness and efficiency will be monitored for compliance. Each control phase is important for obtaining a quality product. However, the preparatory and initial inspections are particularly invaluable in preventing problems. For each definable feature of work discussed in Section 4.0, the three-phase control process will be implemented:

- **Preparatory Phase.** Prior to the performance of a definable feature of work, a Preparatory Control Worksheet (see Appendix A) will be performed by the appropriate QC staff to verify that work prerequisites have been satisfied. The preparatory inspection will include a discussion of procedures for conducting the work, including efficient operations and the level of workmanship required in order to meet contract requirements. Deficiencies will be corrected prior to initiating work.

- **Initial Phase.** After successful completion of the preparatory phase inspection and during the first time the definable feature of work is performed, work activities will be observed to establish standards of efficient operation and workmanship and verify contractual and regulatory compliance, compliance with established procedures, and achievement of QC criteria. Differences of opinion in the interpretation of project requirements, plans, and procedures will be settled at the onset of work, during the initial control phase. Deficiencies will be corrected prior to continuing with the definable feature of work. An Initial Control Worksheet (Appendix A) will be filed for each definable feature of work.
- **Follow-up Phase.** During execution of the definable feature of work, designated QC staff will observe work activities and verify continued compliance with the specifications and requirements of the contract, ask Order, and approved project plans and procedures. Identified deficiencies will be corrected prior to continuation of the feature of work being observed or the start of additional features of work that may be affected by the deficiencies. Identified deficiencies will be documented, as identified in Section 2.2.
- **Final Inspection.** With the completion of the definable feature of work, a Final Phase Inspection will be conducted to document concurrence with the design. A Final Inspection Checklist (Appendix A) will be completed and submitted for each definable feature of work.”

Upon conclusion of the definable feature of work and prior to closeout, a Completion Inspection will be conducted to verify that project requirements relevant to the particular feature of work are satisfied. Outstanding and nonconforming items will be identified and documented. As each item is resolved, it will be noted. COR acceptance and closeout of each definable feature of work is a prerequisite to project closeout.

Additional preparatory and initial inspections on the same definable feature of work may be required at the discretion of the COR or the CQCSM, with approval by the COR. Additional inspections are generally warranted under any of the following conditions:

- Unsatisfactory work, as determined by Cabrera or USACE.
- Changes in key personnel.
- Resumption of work after a substantial period of inactivity (e.g., 2 weeks or more).
- Changes to the project scope of work/specifications.

2.3.3 Inspection Procedures

The quality of project work products and services — including subcontractors and suppliers — will be conducted through implementation of approved operating procedures, appropriate use and control of equipment, and the control and management of materials and technical services. These control procedures will be implemented in a manner that produces efficiency, cost-effectiveness, reliability, and technical merit of the resulting work:

- **Receiving and Storage.** The CQCSM or designee is to inspect construction materials upon receipt and prior to use. Visual inspection criteria include identification, signs of damage or distortion, completeness, evidence of compliance with specifications, and associated documentation. Results of receiving inspections are to be documented and summarized in the QCR.
- **Offsite Control.** Source inspections at facilities of off-site fabricators and suppliers may be required to verify compliance with contract specifications and drawings and to allow for delivery of acceptable items, materials, and/or services.

- **Material Certification.** Copies of purchase orders or subcontracts related to materials requiring receiving inspection are to be provided to the CQCSM for scheduling and recordkeeping purposes. If a purchase order requires vendor certification of materials, equipment, or supplies, the certification is to be verified as to accuracy and conformance and may be used in lieu of a test for those properties covered by the certification. Copies of certifications are to be maintained in the project QC file and made available to the client upon request or submitted, as specified in the contract.
- **Inspection of Workmanship.** The CQCSM or designee is to inspect items that will be used in for work related to excavation, culvert-by pass and backfill/restoration. The CQCSM or designee is to verify that items conform to applicable specifications prior to the placement in concrete or covering. Identified deficiencies are to be communicated to the responsible individual and documented in the QCR. . Corrective actions are to be verified by the CQCSM and recorded on the Corrective Action Request (CAR) (Section 2.4.1)...
- **Operating Procedures.** Workmanship will be performed in accordance with the prepared plans and specifications. Each definable feature of work will be assessed initially and periodically using the three-phase inspection procedure. The quality of work activities will be assessed through inspection of submittals, surveillance of activities, and review of plans/procedures for compliance with project requirements.
- **Equipment Use and Control.** Equipment used in the RA of the FMSS will be controlled as follows:
 1. Government-owned equipment (including equipment purchased for work at the FMSS) will be inventoried and controlled in accordance with corporate and federal requirements.
 2. Measurement and test equipment (M&TE) will be calibrated to a traceable and appropriate standard, and regularly maintained to assure optimum performance. M&TE that do not meet specified performance criteria will be tagged or segregated to avoid their use.
 3. Sampling and field monitoring equipment will be controlled as prescribed in the *APP* (USACE 2013e).
- **Management and Oversight of Subcontractor Services.** Once a subcontractor is selected for a project, the quality of the subcontractor's services and products will be verified initially and periodically thereafter using the three-phase inspection process. The quality of subcontractor work, activities, and deliverables will be verified through inspection of submittals, surveillance of activities, and review of their plans/procedures for compliance with project requirements. The CQCSM is responsible for both onsite and offsite subcontractor QC and surveillance on project activities performed by subcontractors, in addition to activities performed by Cabrera. Discrepancies associated with subcontractor work are to be communicated to the subcontractor for resolution. The deficiency management systems outlined in Section 2.2 are to be followed. The CQCSM and his staff have the authority to act directly with subcontractor representatives on routine QC activities. If a discrepancy is dependent upon subsequent operation, a resolution is to be made by the CQCSM, or his designee, prior to the performance of the subsequent operation.

2.3.4 Document and Material Submittals

Document and material submittals to the Government will be made by use of USACE Engineer (ENG) Form 4025, as appropriate. Material submittals will be tracked using ENG Form 4288 Submittal Register, The CQCSM will review and approve all submittals before submission to USACE and maintain a submittal register. Documents controlling field activities require client approval prior to implementation.

All required submittals must be provided in time to allow for the review, approval, procurement, delivery, and performance of the Preparatory Phase of the three-phase QC system for an item before it is needed for construction. The CQCSM must ensure, through detailed review, that all submittals are in full compliance with the contract, and must check the submittal schedule against the approved construction schedule. All variations must be fully described, identified and justified in the transmittal package, on ENG Form 4025. Work will not be permitted without approved submittals.

Clarifications of plans and/or specifications are to be requested using a Request for Information (RFI) process. Each RFI will be handled by separate letter, by pre-printed forms, or on the daily QC report, as mutually agreed. Questions should be specific and clearly presented; all answers should be documented as mutually agreed. For any discrepancy noted, a recommended solution should be included in the RFI.

2.3.5 Submittal Register

Formal submittals will be tracked on a Submittal Register, Form 4288 (Appendix A). The approval status of outstanding submittals will be reviewed at each weekly progress meeting.

The Submittal Register included in Appendix A includes current submittal numbering sequences and dates; however, this document is subject to change during the course of the remediation, and as such, updated versions of the Submittal Register will be generated. Each updated version will supersede prior versions and will be transmitted to USACE with an accompanying ENG Form 4025, attached to the QCR on the date of issue.

2.4 Deficiencies and Corrective Action

Corrective actions will be implemented if the CQC system reveals that any part of the Definable Features of Work has deficiencies and/or does not meet the requirements of the specifications, until all control measures are found to be adequate by the CQCSM. Deficiencies (including non-conformance) and corrective actions will be recorded in the CQC documentation by notation on the QCR, with a cross-reference to the date or QCR number that contained the initial deficiency notice. An example of the QCR is presented in Appendix A.

In each case, noncompliance issues will be specifically identified in documents generated as a result of implementing the *QCP*. It will be the responsibility of the CQCSM or Alternate to notify the relevant parties of the noncompliance and to ensure that corrective action is taken as soon as possible. The CQCSM or Alternate has the authority and responsibility to stop work, if necessary, related to or affected by the noncompliance condition until action can be taken to correct the noncompliance condition or prevent it from affecting related or subsequent work. The CQCSM or Alternate may, at his discretion, require that the work be retested and/or re-inspected, if necessary, to confirm or disprove the noncompliant condition.

The CQCSM or Alternate may not permit any subsequent work to continue if that work is, or may be, affected by the noncompliance condition until the work is retested and/or re-inspected and found to be in compliance or the work is redone and subsequently retested and/or re-inspected and found to be in compliance.

2.4.1 Corrective Action System

When an adverse quality trend has developed, a discrepancy does not fit into another resolution process, or when earlier actions taken in response to an identified discrepancy are inadequate, a Corrective Action Request (CAR) (see Appendix A) will be initiated. The CAR will be evaluated by the CQCSM and assessed for significance. To the extent commensurate with the significance of the discrepancy, the cause and extent of the condition will be investigated, the corrective action identified, and the verification activities required to close the CAR identified. Activities addressed by a CAR shall cease until the

condition is addressed and corrective actions have been implemented. CARs will be tracked on the CAR Tracking Log (see Appendix A).

2.5 Project Records

Current records of QC operations, activities, and tests performed, including the work of subcontractors and suppliers, will be maintained. Documents generated as a result of the implementation of this *QCP* will undergo review and signoff by appropriate personnel for both QC and safety review.

A master file of *QCP* documents will be maintained at the Site in the Cabrera site office. The master file may include the following documents, as applicable:

- Project plans, and contractual documentation (contract plans and specifications);
- Area maps for site identification and documenting sampling locations;
- Project photographs (including pre-remediation conditions, post-remediation conditions, and key activities in the interim);
- Project logbooks, forms, logs, and tables;
- Field logbooks (completed in indelible ink pen);
- Sample summary tables;
- Field instrument calibration tables;
- Tables for recording of any field data generated;
- QCRs;
- Shipping container checklist;
- Chain-of-Custody forms;
- Laboratory notification checklist;
- Sample shipping documents (e.g., air bills, weight tickets);
- Site visitor logs;
- Significant communication and phone logs;
- Copies of ENG Form 4025, transmittal of documents;
- Material safety data sheets (MSDSs); and
- Field instrument manuals.

Quality Records may be originals, legible copies, microfilm, magnetic disks, optical disks, or other electronic media as appropriate, and will be identifiable by subject, date, originator, and data recorder/author.

2.6 Project Documentation

The QC file is to be maintained by the CQCSM and staff and is to be controlled as a component of the project files. Shop drawings, work orders, and change orders issued for RAs are to be provided to the CQCSM. It is the responsibility of the CQCSM or designee to maintain this technical information and keep it current and recorded as it is revised. Technical information is not to be replaced or revised without receipt of a properly authorized change order or revision. Copies of purchase orders or subcontracts requiring inspection are to be provided to the CQCSM for receiving and recording purposes.

Copies of required certifications received are to be maintained in the QC file and are to be submitted to the client in accordance with agreements made at the coordination meeting. Changes in submittal progress and QC activities related to submittals are to be summarized in the QCR.

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3.0 CONSTRUCTION TESTING

Construction testing is to be performed to characterize materials, work-in-progress, and completed work, to confirm that specifications and requirements are met. Testing in support of the FMSS will include onsite and offsite testing of materials, characterization and sampling and analysis of various media, radiological screening, surveying and analysis. This section provides a construction test plan for the FMSS.

3.1 Construction Testing Application

Construction testing will be conducted and reported in accordance with project specifications, drawings, codes, standards, and procedures. The CQCSM and the QC staff will use this plan as a guide and checklist throughout the project. A preparatory meeting will be held for each definable feature of work where the testing and frequency of tests are to be reviewed. The USACE and other applicable government site representatives will be notified 48 hours prior to any testing performed. The QC staff is responsible for ensuring that the tests are performed and that the results are summarized in and provided with the QCR. Any failing test will be noted on the deficiency log so it can be tracked until such time as rework and retesting can be performed and corrective action is verified.

3.2 Testing Procedures

The QC staff is to verify that the particular test equipment and criterion for successful completion of the required test are correct and confirm that test personnel have a working knowledge of the test and instruments. Upon satisfactory verification of the stated requirements, the test may proceed. Each reading is to be recorded and documented by a member of the QC staff. To the extent practical, tests are to be witnessed by a member of the QC staff. The tests to be conducted, the procedures to be used, and the submittals required for each system are as reported and specified in the applicable specifications, submittal registers and drawings for definable features of work. The submittal register for the project is provided in Appendix A as Form 4288 – Submittal Register.

3.3 Test Organizations

The qualifications of each onsite or offsite laboratory will be verified by the CQCSM, or designee, as prescribed in accordance with the American Society for Testing and Materials (ASTM) E 329: Use in the Evaluation of Testing and Inspection Agencies as Used in Construction. The CQCSM, or designee, is also responsible for monitoring the performance of each laboratory and verifying compliance with the specifications of this QCP. Specifically, the CQCSM is to verify that each laboratory performs the prescribed tests in accordance with the requirements of the test plan and the UFP-QAPP (USACE 2013a). This is to be accomplished through a full review of test data reports. The CQCSM may, at his discretion and with COR approval, perform follow-up onsite inspections of a laboratory or procure outside auditing services to supplement data review information, to clarify uncertainties, or as part of a root cause analysis for an identified problem area.

Data reports are to include sufficient information to verify the effectiveness and implementation of laboratory QC systems. Requisite information may include raw data, instrument printouts, preparation logs, calibration records, test results for associated QC samples, dilution factors, instrument settings, equations used in data reduction, and observed deviations or problems.

3.4 Measurement and Test Equipment (M&TE) Calibration and Maintenance

M&TE are to be calibrated to the appropriate traceable standards and maintained per manufacturer's specifications. Records of these activities are to be generated by the individual performing the activity

with copies provided to the CQCSM for retention in the project QC file. The UFP-QAPP (USACE 2013a). lists the anticipated M&TE for this project and provides calibration and maintenance responsibilities, schedules, and procedures.

3.5 Review of Test Results

Prior to their use in decision-making, test data are to be reviewed by the CQCSM or his designee. The review process will include:

1. Verification that all required documentation was submitted.
2. Verification that specified test procedures and conditions were followed.
3. Review of QC data and comparison of achieved results against specified limits of acceptability.

In addition, approximately 5% of field samples are to be collected and sent to the designated USACE Division Laboratory (QA Laboratory) for testing to assure that the contract laboratory is performing satisfactorily. Requirements for each specific test and exact delivery locations and dates are to be agreed upon at the preparatory phase meeting.

3.6 Documentation of Testing

Testing is to be performed to characterize materials, work-in-progress and completed work, and confirm that specifications are met. Testing in support of remediation activities generally includes onsite tests of materials and as-built structures, onsite Operation and Maintenance (O&M) monitoring, and offsite testing and certification such as laboratory tests, factory tests, receiving inspections, manufacturer certifications, and equipment calibrations. Tests related to environmental samples are addressed in the QAPP (USACE 2013a) and in the Master Final Status Survey Plan (USACE 2013g) and are not necessarily subject to documentation procedures, as specified in this section.

Test results are to be documented by the individual performing the test. Calibration and maintenance records associated with the M&TE are to be generated by the individual performing the activity. Documentation for calibration and maintenance of M&TE is to be made available to the COR upon request.

Test results are to be retained in the project file and summarized in the QCR. These results will additionally be compiled into a report to the CQCSM that includes the name of the test, the items tested, test conditions and procedures, units of measurement, the resulting test data for all submitted samples (both passing and failing), and associated QC information (e.g., equipment calibration and maintenance, duplicate measurements, and use of certified reference standards). A copy of each test report is to be attached to the QCR.

4.0 DEFINABLE FEATURES OF WORK

The definable features of work consist of individual tasks that together comprise each distinct component. The grouping of individual tasks associated with each definable feature of work was established to create the quality control requirements for implementation of the three-phase inspection process.

4.1 Mobilization and General Site Preparation

Mobilization consists of setting up the site office; moving drilling equipment, project personnel and materials to the site; performing utility locations (Applicable State One Call); and conducting project-specific training for onsite workers. All utility clearance shall be obtained by the authorizing authority for the subject site. If utility locations cannot be verified on-site by the public authority, then a private utility location contractor may need to be utilized to confirm/deny the presence of private underground utilities on the site.

Activities will also include setting up and delineating work areas, and staging and setup of equipment and material. Exposures to potential contaminants of concern are not anticipated, however; physical hazards will exist from the unloading and movement of equipment and vehicular traffic. Key trades that will be involved with this task may include but is not limited to electricians, laborers, operating engineers, and sub-contracted utility personnel.

4.2 Excavation of Impacted Soil

Cabrera (using subcontractors) will excavate impacted materials from the project site and transport the materials to the MISS. Soils will be loaded into dump trucks and hauled via road to the MISS for disposition. Excavation will take place in the following phases: excavation; culvert and road bypass (as required); additional excavation (as required based on field screening and sample results); backfill and site restoration

Equipment operators will be supported by a crew of laborers who will perform dust control/suppression, spotting activities, provide traffic control, securing trucks and general housekeeping activities on the site. Confirmation sampling of the excavation will be performed under this task as well.

Laborers will perform decontamination of equipment used to perform work within controlled work areas using a combination of dry brush and wet (wash/rinse) techniques. Operating engineers and truck drivers will assist in the decontamination process as necessary. Decontamination pads will be constructed and wastes generated through this process will be containerized and transported to the MISS for disposition.

During excavation, surface water run-on will be controlled by temporary berms or other diversion structures. Groundwater will be controlled by collection and sampling as necessary.

Key trades that will be involved this definable feature of work may include but are not limited to laborers, operating engineers, teamsters, radiological, sampling, safety, and quality management personnel. Backfilling and restoration activities may also incorporate the services of concrete workers, masons, electricians, and geotechnical testing personnel.

4.3 Waste Management (Load-out and Waste Handling)

Cabrera shall transition and continue ongoing waste handling and load-out for the Project. This work, performed under the direction of the waste transportation and disposal Coordinator and in accordance with the MHTDP (USACE, 2013e), takes place on the MISS after waste soils/debris has been transferred from the survey unit undergoing remediation.

Waste Soils/Debris Handling on the MISS

- Soils will be delivered via dump truck at the MISS from active remediation sites under separate task. Dump trucks will be operated by teamsters.
- The soils are carefully dumped and consolidated by heavy equipment into the existing load-out stockpile. Heavy equipment will be operated by operating engineers.
- Basic decon and radiological surveys are performed to release the truck to pick-up additional waste soils. Radiological surveys will be conducted by radiological control technicians.
- Further conditioning of the soils/debris to address WAC requirements and HS&E considerations are performed, as necessary, including the use of a hoe ram to size concrete and other debris.
- Dust suppression techniques are used to maintain exposures ALARA. Manual dust suppression using hoses will be performed by laborers; teamsters will operate any water trucks employed.
- The T&D Coordinator identifies regions of the soil stockpile for shipment and directs the sampling to support shipping paper development. Sampling will be performed by radiological and/or engineering staff personnel, with the assistance of laborers if required.
- Spill response support will be provided for under this task. Spill kits will be strategically placed and maintained by the field crew.
- Maintenance of the sedimentation pond and asphalt will be provided for under this task.

Soils Load-out

Wastewater Management

- Industrial Pre-treatment and discharge of wastewater will be provided for under this task.
- Cabrera and the team subcontractor will operate and maintain the existing MISS wastewater treatment plant and transition the existing Bergen County Utilities Authority industrial pretreatment discharge permit to support ongoing project remediation objectives
- This work includes multiple permit required confined space entries into various tanks for cleaning and maintenance purposes.
- Wastewater management is performed by operating engineers with the assistance of laborers as necessary under the direction of the transportation and disposal / wastewater management coordinator.

Decontamination

- Personnel will perform decontamination of equipment used to perform work within controlled work areas using a combination of dry brush and wet (wash/rinse) techniques.
- Decontamination pads will be constructed and wastes generated through this process will be processed for disposition.
- Laborers will perform decontamination tasks with the assistance of operating engineers and teamsters as necessary.

Radiological Surveys & Sampling

Ongoing radiological surveys, to include Final Status and Close-out, will be fully integrated into the remedial process to ensure responsiveness (to support remediation milestones) and completeness of data collection to support thorough and accurate close-out and post remedial action reporting. Radiological surveys, sampling, and analysis will be performed by the site radiological and laboratory staff. The

assistance of engineering personnel and sub-contracted drilling and laboratory services/personnel may be required.

The Lead Radiation Protection Technician and Radiation Protection Technician(s) will use the transitioned government-owned GPS and radiation survey equipment to perform this task. Additional survey work will consist of:

Radon/Thoron sampling

Air quality samples will be collected at specified locations. Air samples will be collected in canisters and the samples will be sent to the on-site laboratory to obtain definitive data. The major activities involved with this task include pre-sampling event notifications and approval, set-up of equipment and supplies for sampling, and sample preparation and shipment.

Direct Push Sampling

Soil boring/sampling locations will be identified according to known prior use and findings from previous investigations. Installation will be conducted by Subcontractor using direct push technology (DPT) (i.e., Geoprobe®) methods. Activities will include the set-up of equipment and supplies at the sample/boring location, delineation of the work area, and sample collection. Samples will be sent to the on-site lab for analysis.

Before any direct push work is begun, and at its completion, the subcontractor shall decontaminate the rig, casing, samplers, and all other equipment that will be used on site. The subcontractor shall construct a temporary decontamination pad to contain all decontamination water generated during decontamination of rig and tools.

Groundwater Sampling

This activity will include the collection of groundwater samples from existing monitoring well network for MNA purposes. Groundwater samples will be collected through low-flow sampling techniques using submersible and/or peristaltic pumps. The major activities involved with this task include pre-sampling event notifications and approval, set-up of equipment and supplies at the well for sampling activities, delineation of the work area, and sample preparation and shipment.

Surface Water and Sediment Sampling

This activity will include the collection of samples from surface water and sediments from Lodi Brook. Samples are collected from collection points accessible from the ground surface along the water's edge. The major activities involved with this task include set-up of equipment and supplies at the sampling point, delineation of the work area, and sample preparation and shipment.

Investigative Derived Waste (IDW) Management

Pre-cleaned and dedicated sampling materials/equipment will be used to collect the soil and groundwater samples for laboratory analysis. After the samples are collected, any disposable, or one-time use equipment (tubing, bladders) will be placed in a plastic bag for disposal. Non-disposable sampling and drilling equipment that contacted the soil and/or groundwater will be decontaminated between each sampling location. Gross sediments and/or contamination will first be removed from the sampling and drilling equipment. The equipment will then be washed with DI water and Alconox detergent and then rinsed with DI water.

IDW will be collected and categorized as non-hazardous or hazardous. Potentially hazardous IDW (purge water and decontamination fluids, and soil cuttings (if any) will be taken to the MISS for further disposition. Non-hazardous IDW (normal trash) will be disposed of in a timely fashion during fieldwork.

On-site Laboratory Operations

This task includes the transition and continuation of onsite USACE FUSRAP Maywood laboratory operations and management. The capabilities of the onsite lab shall include analyses of air, water, soil, and materials using standard radiological methods. The capabilities of the onsite lab shall also include, but not be limited to, analyses of soil and water for selected elements using standard inductively coupled plasma atomic emission spectrometer.

4.4 Demobilization and Project Closeout

At the end of the project, Cabrera will decontaminate all materials and equipment, as required, prior to removing them from the last work site. All temporary facilities and utilities will be removed in accordance with contractual agreements. Key trades that will be involved with this task may include but are not limited to electricians, laborers, operating engineers, and sub-contracted utility personnel.

5.0 REPORT PREPARATION

This section describes the methods and requirements for the preparation, review, and approval of task order reports. The report type (e.g., Technical Reports, Closure Reports, Remedial Action Reports, etc.) will be determined by the task order scope of work, contractual and regulatory requirements, and the end use of the document.

For each report, the Project Manager will:

- Determine the content of the report based on the task order scope of work, USACE, and regulatory requirements.
- Determine the report format (e.g., Cabrera, USACE, or regulatory agency).
- Assign qualified personnel to prepare the various items required for the report.
- Distribute information pertinent to their preparation activities and update this information as required.
- Coordinate with the various groups who may be working on the report.
- Assign qualified personnel to review the prepared report.

5.1 Report Format

Unless specific report formats are required by the task order scope of work, the USACE, or required regulation, technical reports will, in general, contain the following items in the order presented:

- **Table of Contents** - Should specify the first page number of the List of Tables, List of Figures, List of Appendices, each section of the report text, and the List of References.
- **List of Tables** - Should sequentially identify by number and title the tables referred to in the text.
- **List of Figures** - Should sequentially identify the figures referred to in the text by report figure or drawing number and title.
- **List of Appendices** - Should identify each appendix by a letter designation (alphabetically) and title.
- **Executive Summary** - Should present a brief synopsis of report purpose, activities, results, conclusions, and recommendations for high-level management use.
- **Report Text** - Should consist of an introduction, the body of the text, and a section that summarizes the Project/site-specific task order work performed, conclusions, and recommendations. The body of the text must be formulated based on the scope of work, design, contractual requirements, and intent of the report.

The introduction should identify and describe the objectives and purpose for which the work was undertaken. It should briefly discuss activities pertinent to the report subject. These may include field work; consultations with the USACE, regulatory agencies, and others; laboratory testing; collection of data from other sources; analyses and resulting conclusions; and the formulation of recommendations.

The body of the report should describe the work activities and accomplishments in clear and concise detail. Cabrera and subcontractor work relating to the report subject should be discussed. The findings of any field explorations and testing, literature searches, external consultations, and observations should be included.

Any laboratory-testing program should be described and its results discussed. The procedures employed and designs formulated should be indicated. The results of work performed should be discussed in detail and must be traceable to the Project/site-specific task order and design records.

The final section of the text should summarize the purpose of the work and Cabrera's undertakings toward meeting that purpose. It should emphasize the results of the work and any conclusions or recommendations reached and any lessons learned. It could include some or all of the following:

- **List of References** - Should include the references cited in the report text, tables, and figures, whether they are external data, publications, or correspondence. The references should include the author's name, title of the publication, publisher, location of the publisher, and date, if the reference is a publication. If the reference is correspondence, the subject, date, names of the parties contacted, and type of correspondence should be included.
- **Tables** - Tables are generally included as a separate section following the List of References, but may be included within each section of the text. Each table should have a title and a number. The information listed in the table will be clearly labeled. Particular care will be taken to include necessary references, symbols, and reporting units so that a table is "self-standing" (i.e., it does not depend on the text for explanation).
- **Figures** - Will be identified with a report figure number and/or a unique drawing number, and a title. Figures may be included as a separate section following the tables, or within each section of the text. Figures will be "self-standing", as described in item 2 above.
- **Appendices** - Should include supplementary information pertinent to the report subject. Often the information contained in an appendix is technical in nature and is included in the report to provide details of topics discussed in the text. Each appendix will be identified by a letter of the alphabet. Pages within the appendix will be in logical sequence, but need not be numbered unless a sequence cannot be reasonably maintained without page numbers.

It is emphasized that the above format is a generalized outline to be followed in report preparation. Other formats are acceptable (e.g., letter reports). In any case, the report will provide sufficient information to allow other organizations to duplicate the work performed and to serve as a complete base for further development or operational use.

5.2 Report Review and Approval

All reports will undergo a technical peer review by qualified personnel, as determined by the Project Manager and/or the Project Engineer, prior to issuance or release. Section 6.0 of this plan describes the technical review and approval requirements for reports.

5.3 Report Submittal

Following the review and approval process, draft, draft final, and final reports will be issued, distributed, and controlled in accordance with the requirements of Section 2.0.

5.4 Documentation

Documents which affect the manner in which activities affecting quality are performed will be prepared, reviewed for adequacy, and approved for release by authorized personnel. Revisions will be subject to the same controls as the original document. Documents submitted to USACE by Cabrera on this project will be in accordance with the Submittal Register.

Minor changes which do not alter the intent of a document (e.g. minor grammatical errors or typographical errors) may be made in lieu of issuance of a revision to the document when identified.

Documents will be uniquely identified and the revision level will be clearly indicated (e.g., DRAFT, DRAFT FINAL, or FINAL). Documents will be considered to be effective upon final approval unless an effective date later than the release date has been established to allow time for indoctrination.

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6.0 REVIEW AND APPROVAL OF DELIVERABLES

Internal technical reviews (ITR) will be performed on deliverables to ensure that they are technically correct and meet the requirements of the task order scope of work. Technical reviews will be conducted on reports, plans, work instructions, and studies prior to being issued to USACE.

6.1 Internal Technical Review

The purpose of the ITR is to insure that the basis, methods, assumptions and numerical calculations (i.e., arithmetic, dimensions, figures, etc.) for a work product and submittal are correct and valid for the specific problem being addressed. The ITR is not intended to formally address spelling, grammar, format, or language in a work product. These items will be addressed during internal editorial reviews.

CABRERA management shall designate the preparer(s) and the individual responsible for an ITR before a product is begun to avoid any conflict of interest during development. Persons directly involved with the preparation of a product may not serve as independent technical reviewers for that same product.

ITR is performed by a staff member on completed products only. ITR of a partially completed product is not allowed, and all ITR shall be completed before a product is returned to the preparer for comment resolution. An informal examination of a partially completed product is allowed to provide for spotting errors in assumptions or methods early on, but this shall not be used as a labor saving action to reduce the effort required for full ITR once the product is completed. ITR shall be performed by an individual who is familiar with the problem being solved, and the methods employed in doing so, but who is not an active member of the preparation team.

The primary objectives of the ITR are to ensure that:

- The engineering concepts are valid,
- The recommended plan is feasible and will be safe and functional,
- A reasonable cost estimate has been developed,
- That the engineering analysis is correct,
- That it complies with policy requirements, and
- It complies with accepted USACE, Cabrera, and/or Industry engineering criteria or practices.

The Cabrera ITR process and the associated certification form and checklist are provided in Appendix C.

6.2 Deliverable Submittal

The Project Manager will determine USACE and/or regulatory agency requirements for the deliverable submittal, including the number of copies required and to whom the report copies should be transmitted. Reports may be issued as "draft", "draft final", or "final" presentations of the work. Draft reports submitted under this Project will be considered "drafts" only in the sense that they have not been reviewed and approved by USACE and will be designated with an alpha revision for document control purposes. In all respects, draft reports will be complete, in proper format, and free of grammatical and typographical errors. Draft reports will have completed an internal independent technical review or peer review prior to being submitted or issued, unless otherwise requested by the USACE. When required by the scope of work, "lessons learned" will be prepared as part of the deliverable. Deliverables will be submitted to the USACE using a signed and completed ENG Form 4025 - Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacturer's Certificates of Compliance (Appendix A).

Draft, draft final, and final reports will be issued, distributed, and controlled in accordance with the requirements of Section 2.0.

6.3 External Reviews

The Project Manager will respond to USACE comments on task order deliverables. USACE comments are normally forwarded with a signed ENG Form 4025 - Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacturer's Certificates of Compliance with USACE assigned action codes (i.e., A, B, C, etc). Cabrera will prepare responses to USACE comments and regulator comments in a format as directed by USACE.

6.4 Documentation

Draft, draft final, and final deliverables and associated documentation will be issued, controlled, and maintained in the record file system in accordance with the procedures contained in Section 2.0.

Records prepared under this section included the following:

- Draft, Draft Final, and Final deliverables
- Document Review Comment Records (see Appendix A) or email

7.0 REFERENCES

DOE 1992. *Remedial Investigation Report for the Maywood Site; Volume I*. Prepared for the U.S. Department of Energy by Bechtel National, Inc., October 1992.

DOE 1995, Bechtel National, Inc. *Remedial Design/Remedial Action Implementation Plan for the Maywood Vicinity Properties*, prepared by Bechtel National, Inc. (BNI) for the DOE, August 1995.

USACE 1995. Engineering Regulation (ER) 1180-1-6 Contracts - Construction Quality Management, CEMP-CE, September 1995.

USACE 2011a. Engineering Regulation (ER) 1110-1-12 Engineering and Design - Quality Management, CEMP-ES/CECW-EP, March 2011.

USACE 2012a. Engineering Regulation (ER) 415-1-10 Construction - Contractor Submittal Procedures, CEMP-CE, April 2012.

USACE, 2012b. *Final Groundwater Record of Decision, FUSRAP Maywood Superfund Site*. Prepared for USACE by Shaw Environmental, Inc.

USACE 2013a. *Uniform Federal Policy-Quality Assurance Project Plan (UFP-QAPP)* prepared by Cabrera Services, Inc, for U.S. Army Corps of Engineers, December 2013.

USACE 2013b. *Project Management Plan* prepared by Cabrera Services, Inc, for U.S. Army Corps of Engineers, December 2013.

USACE 2013c. *Remedial Action Work Plan*, prepared by Cabrera Services, Inc, for U.S. Army Corps of Engineers, December 2013.

USACE 2013d. *Accident Prevention Plan/Site Safety and Health Plan,(APP/SSHP)* prepared by Cabrera Services, Inc, for U.S. Army Corps of Engineers, December 2013.

USACE 2013e. *Material Handling Transport and Disposal Plan (MHTD)*, prepared by Cabrera Services, Inc, for U.S. Army Corps of Engineers, December 2013.

USACE 2013f. *Master Final Status Survey Plan (Master FSSP)* with property cluster-specific addendum, prepared by Cabrera Services, Inc for U.S. Army Corps of Engineers, December 2013.

USACE 2013g. *Community Relations Plan (CRP)*, prepared by Cabrera Services, Inc. for U.S. Army Corps of Engineers, November 2013.

USACE 2013h. *General Environmental Protection Plan (GEPP)*, prepared by Cabrera Services, Inc. for U.S. Army Corps of Engineers, December 2013.

USACE 2013i. *Water Management Plan*, prepared by Cabrera Services, Inc for U.S. Army Corps of Engineers, December 2013.

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APPENDIX A
FMSS QUALITY CONTROL FORMS

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Quality Control Report	A-7
Preparatory Control Worksheet	A-11
Initial Control Worksheet	A-15
Corrective Action Request.....	A-19
Form 4025 – Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacturer’s Certificates of Compliance	A-21
Form 4288 - Submittal Register.....	A-23

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Quality Control Report

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CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION		REPORT NUMBER 35	Page 1 of 2
		DATE 09 Dec 2013 - Monday	
PROJECT FUSRAP Maywood Superfund Site Soils OU1		CONTRACT NUMBER W912DQ-13-D-3016 0001	
CONTRACTOR Cabrera Services Inc	WEATHER Weather Caused No Delay Temperature Mn 30 °F, Max 42 °F, 0.22 IN Precipitation; 7 MPH Wnd		
QC NARRATIVES			
List Contractors and Subs Working This Day & Area of Responsibility Cabrera Services, Inc (Cabrera)			
Description & Location of Work (Also Indicate days of no work and reasons) Administrative: <ol style="list-style-type: none"> 1. Preparation for contract transition. 2. Preparation of the Uniform Federal Project Quality Assurance Project Plan for submittal. 3. Receipt and review of USACE comments on Submittal 1100-2.1 Quality Control Plan. USACE FUSRAP Maywood Laboratory <ol style="list-style-type: none"> 1. See the attached UFM Laboratory Daily Quality Control Report for details of work performed. 			
Follow-Up Phase Inspection Performed, Results & Corrective Action Taken None			
Job Safety, Indicate What Was Checked, Results, Corrective Action Taken Safety Inspections: Inspected general conditions of parking lot and walking/stair areas in the support zone. Crew removed ice and applied salt to reduce slip hazards.			
Did Anything Develop that May Lead to a Change Order/Claim? No			
Verbal Instructions Given by Gov't None			
Delivery of Equipment and Materials None			
Additional Activities and Remarks (i.e., Submittal Actions, Misc Remarks) <ol style="list-style-type: none"> 1. Cabrera received USACE comments on the Submittal 1100-2.1 Quality Control Plan. 2. Cabrera Submitted the Quality Control Plan (Submittal 1100-2.1) for review and approval. 3. Cabrera forwarded its Authorization Notification for Contractor Payment Estimate Form ENG 93 (S-0001) to the USACE. 			
Activities in Progress: None			
Safety Inspection/Safety Meetings: Daily Toolbox/Job Safety Analysis Meetings were held at MISS (including laboratory). Topic covered: backing safety. See notes above concerning slipping hazards and their mitigation.			
QC Special Inspections/Activities: None			

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION		REPORT NUMBER 35	Page 2 of 2
PROJECT FUSRAP Maywood Superfund Site Soils OU1		DATE 09 Dec 2013 - Monday	CONTRACT NUMBER W912DQ-13-D-3016 0001
PREP/INITIAL DATES (Preparatory and initial dates held and advance notice) No preparatory or initial inspections were held today			
ACTIVITY START/FINISH No activities were started or finished today			
QC REQUIREMENTS No QC requirements were completed today			
QA/QC DEFICIENCY (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected) No QC Deficiency items were issued today No Deficiency items were corrected today			
CONTRACTORS ON SITE (Report first and/or last day contractors were on site) No contractors had their first or last day on site today			
LABOR HOURS No labor hours were Reported today Total hours worked to date: 110.0			
EQUIPMENT HOURS No equipment hours were Reported today Total operating hours to date: 17.00			
ACCIDENT REPORTING (Describe accidents) No accidents reported today			
CONTRACTOR CERTIFICATION		On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.	
QC REPRESENTATIVE'S SIGNATURE	<small>Digitally signed by E. Joseph Smith, Sr. DN: cn=E. Joseph Smith, Sr., ou=Custom Services, Inc., email=esmith@csinc.com, o=CS Date: 2013.12.10 10:19:40 -0500</small>	DATE	SUPERINTENDENT'S INITIALS
			DATE

Preparatory Control Worksheet

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FUSRAP Maywood Superfund Site Soils OU1 W912DQ-13-D-3016 0001 FUSRAP Residency		16 Dec 2013																														
PREPARATORY CONTROL WORKSHEET																																
DEFINABLE FEATURE OF WORK : Excavation																																
<p>A. ACTIVITIES INCLUDED UNDER Excavation -</p> <p>B. QUALITY CONTROL REQUIREMENTS -</p> <p>C. QA/QC DEFICIENCY ITEMS -</p> <p style="margin-left: 40px;">INCLUDE ADDITIONAL COMMENTS ON DAILY REPORT</p> <p>_____</p> <p>_____</p>																																
<p>D. LABOR RATES -</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">LABOR CLASSIFICATIONS</th> <th style="text-align: center;">BASIC RATE</th> <th style="text-align: center;">FRINGE BENEFITS</th> <th style="text-align: center;">PLUS %</th> <th style="text-align: center;">TOTAL WAGE/HR</th> </tr> </thead> <tbody> <tr><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>			LABOR CLASSIFICATIONS	BASIC RATE	FRINGE BENEFITS	PLUS %	TOTAL WAGE/HR	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
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<p>E. REVIEW CONTRACT DRAWINGS AND SPECIFICATIONS -</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">DRAWING / SPEC. NO</th> <th style="text-align: left;">COMMENTS / CONFLICTS</th> <th style="text-align: right;">DISCUSSED Yes / No / NA</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td style="text-align: center;">___</td> </tr> </tbody> </table>			DRAWING / SPEC. NO	COMMENTS / CONFLICTS	DISCUSSED Yes / No / NA	_____	_____	___	_____	_____	___	_____	_____	___	_____	_____	___															
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<p>F. REPETITIVE DEFICIENCIES FOUND ON PREVIOUS PROJECTS -</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="text-align: right;">DISCUSSED Yes / No / NA</th> </tr> </thead> <tbody> <tr> <td>1. _____</td> <td style="text-align: center;">___</td> </tr> <tr> <td>2. _____</td> <td style="text-align: center;">___</td> </tr> <tr> <td>3. _____</td> <td style="text-align: center;">___</td> </tr> <tr> <td>4. _____</td> <td style="text-align: center;">___</td> </tr> </tbody> </table>				DISCUSSED Yes / No / NA	1. _____	___	2. _____	___	3. _____	___	4. _____	___																				
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FUSRAP Maywood Superfund Site Soils OU1 W912DQ-13-D-3016 0001 FUSRAP Residency	16 Dec 2013
PREPARATORY CONTROL WORKSHEET	
DEFINABLE FEATURE OF WORK : Excavation	
G. CONTROL CHECKS - Cont. 4. _____	
H. JOB SITE SAFETY -	
1. _____	IN COMPLIANCE Yes / No / NA
2. _____	___
3. _____	___
4. _____	___
I. QUALITY ASSURANCE EVALUATION NOTES -	
1. _____	DISCUSSED Yes / No / NA
2. _____	___
3. _____	___
4. _____	___

Initial Control Worksheet

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FUSRAP Maywood Superfund Site Soils OU1 W912DQ-13-D-3016 0001 FUSRAP Residency	16 Dec 2013																														
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<p>G. QA Evaluation Notes -</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="text-align: right;">DISCUSSED</th> </tr> <tr> <th style="width: 80%;"></th> <th style="text-align: right;">Yes / No / NA</th> </tr> </thead> <tbody> <tr> <td>1. _____</td> <td style="text-align: right;">___</td> </tr> <tr> <td>2. _____</td> <td style="text-align: right;">___</td> </tr> <tr> <td>3. _____</td> <td style="text-align: right;">___</td> </tr> <tr> <td>4. _____</td> <td style="text-align: right;">___</td> </tr> </tbody> </table>			DISCUSSED		Yes / No / NA	1. _____	___	2. _____	___	3. _____	___	4. _____	___																		
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Corrective Action Request (CAR)

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Corrective Action Request

CAR #: _____

Reason Initiated:

Date: _____

- Internal Audit
- External Audit
- Customer Complaint
- Product Nonconformity
- Other: _____

Initiator: _____

Describe the incident and immediate action(s) taken:

Is this a significant condition adverse to quality? yes no

Probable root cause(s): _____

CAM Assigned: _____

Corrective Action Plan:

Estimated completion date: _____

QAM Approval: _____

Actual date action plan completed: _____

Verification of effectiveness (list evidence of effectiveness or reference for new CAR #)

Have associated documents been updated? yes no n/a

QAM CAR Closure: _____ Date: _____

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(continued)

INSTRUCTIONS

1. Section 1 will be initiated by the Contractor in the required number of copies.
2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.
3. The "Item No." will be the same "Item No." as indicated on ENG Form 4288 for each entry on this form.
4. Submittals requiring expeditious handling will be submitted on a separate form.
5. Separate transmittal form will be used for submittals under separate sections of the specifications.
6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications-- also, a written statement to that effect shall be included in the space provided for "Remarks".
7. Form is self-transmittal, letter of transmittal is not required.
8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.
9. U.S. Army Corps of Engineers approving authority will assign codes as indicated below in space provided in Section I, column I to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

A -- Approved as submitted	E -- Disapproved (See attached)
B -- Approved, except as noted on drawings	F -- Receipt acknowledged
C -- Approved, except as noted on drawings. Refer to attached sheet resubmission required.	FX -- Receipt acknowledged, does not comply as noted with contract requirements
D -- Will be returned by separate correspondence	G -- Other (<i>Specify</i>)

Approval of items does not relieve the contractor from complying with all requirements of the contract plans and specifications

SUBMITTAL REGISTER (ER 415-1-10)																					CONTRACT NO. W912DQ-13-D-3016Task Order No. 0001			
TITLE AND LOCATION FUSRAP Maywood Superfund Site, Maywood New Jersey														CONTRACTOR Cabrera Services, Inc. 100 West Hunter Avenue Maywood, New Jersey 07607						SPECIFICATION SECTION				
TRANS- MITTAL NO.	ITEM NO.	SPECIFI- CATION PARA- GRAPH NO.	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSI- FICATION		CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION		GOVERNMENT ACTION		REMARKS	
				D A T A	D R A W I N G S	I N S T R U C T I O N S	S C H E D U L E S	S T A T E M E N T S	R E P O R T S	C E R T I F I C A T E S	S A M P L E S	R E C O R D S	I N F O R M A T I O N	G O V. A P P R O V E D	R E V I E W E R	SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERN- MENT	CODE		DATE
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.

APPENDIX B

Résumés

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EDMUND J. FORT

CONTRACTOR QUALITY CONTROL SYSTEMS MANAGER

Education

- Bachelor of Science, Liberal Arts/Management, Southern Vermont College, Bennington, Vermont, 2006 (Valedictorian)

Current Specialized Training

- USACE CQC, 2/28/2012
- 40-Hour OSHA HAZWOPER, 1987-current
- OSHA 8 Supervisor Safety Training
- OSHA Excavation Competent Person, 2004
- OSHA 10-Hour Construction Industry Safety
- OSHA 30-Hour Construction Industry Safety
- Site Safety Officer Training, (Shaw 2004)
- State of New York Department of Public Works, Protection of Underground Utilities, Albany, NY 2002
- Radiation Worker Training, Cabrera Services, 2007- Current
- Radiation Worker II, 2000 - Current

Summary of Experience

Mr. Fort is a Quality Control Systems Manager (CQCSM) with 28 years of experience in the remediation of contaminated sites and the mitigation of hazardous materials emergencies in the positions of Site Manager, Site Health and Safety Officer, and CQCSM . His current duties include monitoring site activities for compliance with project work plans, contract requirements, and applicable regulations through the implementation of the USACE's Three Phase Control System, the performance of site inspections, and materials and receipt inspections. Mr. Fort is also responsible for the generation of quality control report and the maintenance of project files.

As a Site Manager, Mr. Fort was also responsible for the generation and implementation of work plans, oversight of multidisciplinary personnel, monitoring site health and safety (H&S), reporting work progress, and client relations. His administrative capabilities included the outsourcing of goods and services, the review of bids and proposals, and financial oversight. Mr. Fort has directed work activities on a wide variety of projects including facility decontamination and demolitions (D&D); contaminated soil removal and stabilization; tank locating, cleaning, and removal; abandoned/buried drum and container sampling, handling and removal; hazardous materials sampling, bulking, packaging, and transportation and disposal (T&D); and the vacuum removal of dust and sludge. He has also acted as the designated site health and safety officer on many projects and has been an approved response manager in several U.S. Environmental Protection Agency (EPA) regions.



Key Projects

04/2011 – 07/2013

Contractor's Quality Control Systems Manager, North St. Louis County Vicinity Properties FUSRAP, USACE St. Louis District.

Monitored site activities for compliance with project work plans, contract requirements, and applicable regulations. Key duties included the implementation of the USACE's Three Phase Control System; inspection and testing of utilities installation and junction box construction (natural gas, steam, condensate, water compressed air, and oxygen service welds and connections); materials and receipt inspections; the generation of daily reports; and the maintenance of project files.

03/2010 – 04/2011

Contractor's Quality Control Systems Manager, North St. Louis County Vicinity Properties FUSRAP, USACE St. Louis District.

Monitored site activities for compliance with project work plans, contract requirements, and applicable regulations. Key duties included the implementation of the USACE's Three Phase Control System; performance of site inspections, materials, and receipt inspections; the generation of daily reports; and the maintenance of project files.

03/2010 – 10/2010

Site Health and Safety Manager, North St. Louis County Vicinity Properties FUSRAP, USACE St. Louis District.

Monitored site activities for compliance with the Site Safety and Health Plan, adherence to corporate health and safety policies and procedures, the USACE EM385-1-1, and applicable safety regulations. Duties as the SSHP were performed concurrently with the duties of the CQCSM between 03/2010 and 10/2010 on this project.

06/2009 – 09/2009 and 12/2009 – 03/2010

Contractor's Quality Control Systems Manager, Army Pulse Radiation Facility Decommissioning Project, Aberdeen Proving Grounds, Maryland, USACE Baltimore District.

Monitored site activities for compliance with project work plans, contract requirements, and applicable regulations. Key duties included the implementation of the USACE's Three Phase Control System; performance of site inspections, materials, and receipt inspections; the generation of daily reports; and the maintenance of project files.

09/2009 and 11/2009

CQCSM, CERCLA Removal Action, Safety Light Corporation Superfund Site, Bloomsburg PA, USACE Baltimore District

Monitored site activities for compliance with project work plans, contract requirements, and applicable regulations. Key duties included the implementation of the USACE's Three Phase Control System; performance of site inspections, materials, and receipt inspections; the generation of daily reports; and the maintenance of project files.



04/2008 – 06/2009

Site Health and Safety Manager, Cabrera Services, Inc., US Army/Lake City Army Ammunition Plant, Independence, Missouri

Mr. Fort acted as the Site's Health and Safety Officer and managed the waste stabilization process on this site. The contaminants and hazards of concern were depleted uranium, lead, and UXO items. Mr. Fort's general safety duties included but were not limited to employee and visitor training through site safety plan (SSHP) orientations, the generation and implementation of site specific JSAs, daily safety meetings, and site specific hazard communication orientations; air monitoring; hot work and excavation permitting; incident investigation; site inspections; total dust and personnel pump air sampling (for lead); and the electronic maintenance of the site's safety documents. As the site's sand stabilization oversight, Mr. Fort sampled treated sand, evaluated analytical results, tracked the status of waste piles, and controlled their movement and ultimate disposal. He also managed many of the site's basic administrative tasks (timesheets; expense reports; collection, scanning and transmission of delivery slips/receipts; etc.).

05/2007 – 04/2008

Cabrera Services, Inc., USACE, Painesville, Ohio

Mr. Fort provided technical assistance during the excavation and packing of soil impacted by various radiological contaminants. Duties included excavation oversight with laser level and the layout of polygons using predetermined coordinates and GPS units; soil packaging; water collection and filtration; tank cleaning; and health and safety oversight.

01/2006 – 12/2006

Lead Field Manager and Operations Manager, Shaw Environmental & Infrastructure, USCG, New Orleans and Southeastern Louisiana

Mr. Fort was responsible for the oversight of ten Construction Field Managers and their sub-contracted crews clearing commercial waterways throughout Southern Louisiana in the wake of hurricane Katrina. In this position a wide variety of duties were performed. These included waterway reconnaissance, working with vendors and the affected public to develop and implement innovative recovery plans in a dynamic environment, interface with the government client (US Coast Guard), liaison with local and state agencies, company representative at a weekly stakeholders meeting in Plaquemines Parish, and the review and audit of financial billing documents.

05/2002 – 12/2005

Project Superintendent, Shaw Environmental & Infrastructure, Inc., USACE Colonie FUSRAP, New York

Responsible for the generation and implementation of work plans, oversight of multidisciplinary personnel, monitoring site health and safety, reporting work progress, and client and union relations. Other duties include the outsourcing of goods and services and the review of bids and proposals. Specific site activities included dewatering, groundwater



treatment, the removal and stabilization of mixed wastes with an acid wash system, the management of soil piles, rail transportation of treated soils, backfilling, restoration, and site utility installation. The major contaminants of concern were U-238, Th-232, lead, copper, and arsenic.

01/2000 – 05/2002

Project Superintendent, IT Corporation (The Shaw Group, Inc. acquired substantially all of the operating assets

of The IT Group, Inc., on May 23, 2002), USACE FUSRAP, Colonie, New York

See above.

01/1997 – 01/2000

Project Superintendent/Response Manager, IT and OHM Corporation, US EPA, Hopkinton, Massachusetts

Worked as a Response Manager at various sites in EPA Regions I and II. Duties included the generation and implementation of work, safety, and sampling plans; client relations; the oversight of subcontractors; review of bids and proposals; and the review of financial billing documents. Specific project highlights include:

1999–Taunton MA: The removal, stabilization, and disposal of chromium containing tannery wastes from lagoons on a tidal river. Work activities included the excavation of sludge and soil; stabilization; transportation and disposal; soil sampling, control of dust, odors, and silt; and site restoration. Quantity of soil handled was 20,000 cubic yards.

1999–Beverly MA: Management and load out of 22,000 cubic yards of previously stabilized chromium containing wastes.

1999–Taunton MA: The installation of parking lot subgrade and curbing and the restoration at a previously remediated site.

1998–Gardner MA: Clean up and load out of debris from a large furniture warehouse after a fire at the facility.

1998–Bennington VT: Removal and disposal of 15,000 yards of soil contaminated with PCBs.

1998–Bars Mills ME: Oversight of the demolition of a large mill built over a hydro–electric dam on the Saco River.

1998–New Bedford MA: Installation of 4200 feet of six foot chain link fence topped by three strands of barb wire. The fencing was a continuation of a previous action to secure a former rail facility contaminated with PCBs and dioxins.

1998–New Rochelle NY: Disposal of several roll–offs containing PCB wastes and project demobilization.

1998–Rochester NY: Decontamination and partial interior demolition of a multi–unit residence contaminated with elemental mercury. This project involved intensive air sampling (both personal and area) and the removal and replacement of several building elements.

1997–North Haven CT: Vacuum removal of pesticide and herbicide dusts from a former



crushing facility. Over 30 yards of fine dust containing DDT, Dieldren, Silvex, and other compounds were removed. The entire three story building was gutted and all demolition debris and equipment disposed of as well. Work was performed entirely in level B with intensive personal and area air monitoring.

1997–Newtown CT: Installation of 2100 feet of eight foot high security fencing topped with three strands of barbed wire around a former aluminum smelting facility. Sampled, bulked, and disposed of many containers and drums left at this facility. Also removed spent pot-lining and alumina dusts with a vacuum truck.

1997–New Bedford Ma: Installation of the first phase of a six foot high security fence topped by three strands of barbed wire (4800 linear feet) around a former rail yard contaminated with PCBs and dioxin.

1997–Bridgeport CT: Sampling, bulking, and the disposal of the contents of approximately 500 drums, vats, and containers abandoned in a former plating facility. This work was performed entirely in level B.

09/1995 – 02/1997

Site Supervisor, OHM Corp., Plattsburg AFB, New York

Site Supervisor for a major tank and contaminated soil removal at Plattsburg AFB. Responsible for 5 crews involved in the excavation of contaminated soil, the removal of 153 underground and above ground storage tanks, oil/water separators, and septic systems throughout this former Air Force Base.

01/1995 – 09/1995

Supervisor, Tank Cleaning, Former Newport Naval Base, Middletown, RI, 01/1995 – 09/1995

Supervised the cleaning of nine 2.5 million gallon underground storage tanks (bunker oil).

05/1994 – 12/1994

Supervisor, Drum Removal, Norfolk Naval Base, Norfolk, VA

Managed the removal and sampling of buried drums, containers, and soil. Duties included the oversight of wetlands restoration subcontractor.

03/1994 – 04/1994

Supervisor, Diver Oversight, OxyChem, Tonawanda, NY

Oversaw subcontracted divers from a dive barge engaged in the hand dredging of dense, non-aqueous phase liquid (DNAPL) in the Niagara River.

01/1994 – 03/1994

Supervisor, Silt Removal, General Electric, Hudson Falls, NY

Supervised the final stages of the removal of polychlorinated biphenyl (PCB)-contaminated silt from abandoned raceways on the Hudson River.

11/1993 – 12/1993

Supervisor/Response Manager, Asbestos Collection and Staging, EPA, Stratford, CT



Supervised the collection and staging of asbestos and metals-containing wastes excavated at various locations in Stratford, CT. Primary duties included coordination of waste transportation among the sites, sampling, and soil packaging/staging.

03/1993 – 10/1993

Supervisor, Vacuum Recovery, Alcoa, Massena, NY

Project involved vacuum recovery (trailer-mounted units) of alumina and spent pot-lining dusts. Also cleaned and decommissioned dust collectors and process equipment.

06/1992 – 02/1993

Supervisor, Decontamination and Demolition (D&D) of a former resins manufacturing facility, Reichold

Chemical, Elizabeth, NJ

Performed stage two D&D of this former resins manufacturing facility (see 09/1989–06/1991).

03/1992 – 06/1992

Supervisor, Plating Facility D&D, Bennington, VT

Day shift supervisor for the D&D of a plating facility on the first floor of an operating factory. Project required intensive air handling to remove carbon monoxide (CO) while preventing the migration of lead-containing dusts. Tasks included asset tracking, controlled interior demolition, the vacuum removal of dusts, pressure washing, and the treatment of wash and dust suppression waters.

10/1991 – 03/1992

Supervisor, Lead Dust Removal, Boeing Helicopters, Philadelphia, PA

Supervised the night shift on a lead dust removal project. Work was conducted in the attic space between 120 and 135 feet above a live factory floor. Work activities included the vacuum removal of dusts (Vactor® trucks with manifold system) elaborate scaffold systems, safety nets, and the oversight of subcontracted scaffold carpenters and steel workers.

06/1991 – 09/1991

General Foreman, Cleanup of Former Toxic Substance Disposal Facility (TSDF), EPA, North Kingston, RI

Oversaw the collection, sampling, bulking, and disposal of over 5,000 drums and containers of various chemical wastes.

09/1989 – 06/1991

General Foreman, Decontamination and Demolition (D&D) of a former resins manufacturing facility, Reichold

Chemical, Elizabeth, NJ

Stage one of the D&D of this former resins manufacturing facility. Tasks included extensive tank cleaning (3,000–10,000 psi pressure washers/hot water washers, sand blasting, jackhammers), line draining and flushing, coldcutting, confined space entries, vacuum removal of wastewater, water treatment, and the oversight of asbestos removal and heavy demolition



subcontractors.

09/1988 – 09 1989

Foreman, Decontamination and Demolition (D&D) of a former pigments manufacturing facility, Glens Falls,

NY

Oversaw crews performing various tasks on the remediation of this site contaminated with heavy metals.

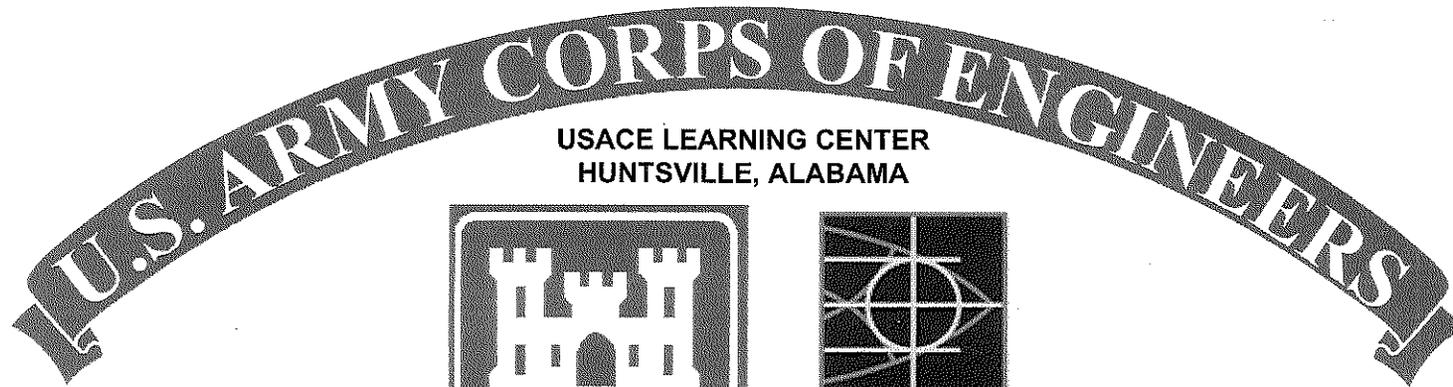
03/1988 – 10/1991

General Foreman, Foreman, Lead Recovery Technician

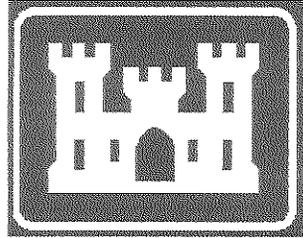
Various chemical emergencies in NJ, NY, and PA, Cleaned leaking drums in trailers, punctured and leaking railcars, oil spills on the land and water, abandoned drums, improperly disposed medical wastes, leaking pesticide drums at JFK airport, cyanide spill in a warehouse. Please note that these response dates overlapped with duties performed on fixed/planned projects. Clients included Conrail, Schenectady Chemical, the NJ DEP, Johnson and Johnson, American Standard, Hoechst Celanese, DuPont, UPS, and Exxon.

Foreman/Lead Recovery Technician, Various D&D Projects, Various Clients, East Windsor, NJ, 11/1985 –09/1988

Laborer and crew leader at various D&D projects and emergency responses in NY, NJ, and RI.



USACE LEARNING CENTER
HUNTSVILLE, ALABAMA



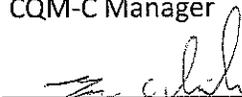
CERTIFICATE

E. Joseph Fort, Jr.

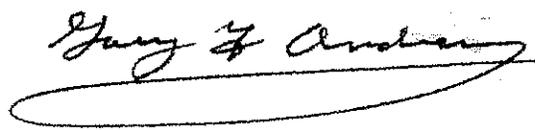
LRB-01-12-00010

has completed the Corps of Engineers and Naval Facility Engineering Command Training Course

CONSTRUCTION QUALITY MANAGEMENT FOR CONTRACTORS - #784

Buffalo, NY	February 27-28, 2012	Buffalo District	Ryan Lenihan
Location	Training Date(s)	Instructional District/ NAVFAC	CQM-C Manager
Ryan Lenihan	ryan.c.lenihan@usace.army.mil	(716) 879-4397	
Facilitator/Instructor	Email	Telephone	Facilitator/Instructor Signature

THIS CERTIFICATE EXPIRES FIVE YEARS FROM DATE OF ISSUE
CQM-C Recertification online course: <https://www.myuln.net>


Director, USACE Learning Center



Baltimore Office

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www.cabreraservices.com

19 November 2013

Mr. Joe Fort

317 Sidney Baker S. Suite 400-197

Kerrville, TX 78028

Subject: Contractor Quality Control Systems Manager Assignment
FUSRAP Maywood Superfund Site Maywood, New Jersey

Dear Mr. Fort,

This is a letter of direction outlining your duties and responsibility as Cabrera Services, Inc.'s (Cabrera's) Contractor Quality Control Systems Manager on the above referenced project.

The Quality Control system you are responsible for includes record keeping, documentation, and inspection provisions utilizing the three phases of control: Preparatory, Initial, and Follow-up. You are directed to the Unified Facilities Guide Specification 01451A for specific instructions outlining these control phases. All control phases shall be recorded daily on a Daily Quality Control Report, which is to be submitted to the United States Army Corps of Engineers (USACE) representative on the following business day covered by the report. You will make, on a continuing basis, sufficient daily follow-ups to ensure that all workmanship and materials are in conformance with the specifications. You will be responsible for all testing as required by the specifications and will ensure that samples are properly submitted and that results are received from the laboratory and submitted to USACE. You have the authority to stop work due to deficiencies in any of the above requirements.

You will be responsible for preparing and maintaining the Submittal Register, ENG Form 4288 throughout the project, transmitting submittals to the USACE utilizing ENG Form 4025. You shall check all submittals, including those from subcontractors and suppliers, for acceptability prior to their submission to USACE.

You are directed to review the project Contractor Quality Control Plan as well as contract and task order requirements.

Sincerely,

Quality Control Manager

cc: Bill Lorenz, Program Manager,
Cabrera Project file



Baltimore Office

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Baltimore, MD 21201
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F: 410-332-8183

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16 December 2013

Ms. Yonelle Baptiste

Subject: Alternate Contractor Quality Control Systems Manager Assignment
FUSRAP Maywood Superfund Site Maywood, New Jersey

Dear Ms. Baptiste,

This is a letter of direction outlining your duties and responsibility as Cabrera Services, Inc.'s (Cabrera's) Alternate Contractor Quality Control Systems Manager on the above referenced project.

The Quality Control system you are responsible for as an alternate includes record keeping, documentation, and inspection provisions utilizing the three phases of control: Preparatory, Initial, and Follow-up. You are directed to the Unified Facilities Guide Specification 01451A for specific instructions outlining these control phases. All control phases shall be recorded daily on a Daily Quality Control Report, which is to be submitted to the United States Army Corps of Engineers (USACE) representative on the following business day covered by the report. You will make, on a continuing basis, sufficient daily follow-ups to ensure that all workmanship and materials are in conformance with the specifications. You will be responsible for all testing as required by the specifications and will ensure that samples are properly submitted and that results are received from the laboratory and submitted to USACE. You have the authority to stop work due to deficiencies in any of the above requirements.

You will be responsible for preparing and maintaining the Submittal Register, ENG Form 4288, transmitting submittals to the USACE utilizing ENG Form 4025. You shall check all submittals made as an alternate, including those from subcontractors and suppliers, for acceptability prior to their submission to USACE.

You are directed to review the project Contractor Quality Control Plan as well as contract and task order requirements.

Sincerely,

Sean Liddy, CSP
Corporate Quality Control Manager
Occupational Health & Safety Manager

cc: Bill Lorenz, Program Manager,
Cabrera Project



Baltimore Office

1106 N. Charles Street, Suite 300
Baltimore, MD 21201
T: 410-332-8177
F: 410-332-8183

www.cabreraseservices.com

16 December 2013

Mr. Chad Miller

Subject: Site Safety and Health Officer
FUSRAP Maywood Superfund Site Maywood, New Jersey

Dear Mr. Miller,

This is a letter of direction outlining your duties and responsibility as Cabrera Services, Inc.'s (Cabrera's) Site Safety and Health Officer on the above referenced project.

As the Site Safety and Health Officer (SSHO) you are responsible for the implementation of the Accident Prevention Plan and monitoring site activities for adherence to USACE Health and Safety Requirements Manual EM 385-1-1, Cabrera's safety procedures, applicable safety regulations, and any unsafe acts or conditions. You have the authority to shut down any operation that jeopardizes the health and safety of site personnel, the environment, or the local community, and to initiate any corrective actions necessary.

As the SSHO you will provide onsite training of field personnel that conveys site-specific health and safety requirements including daily updates during the morning safety briefings that review applicable activity hazard analyses and alert the field crew to any changed conditions and/or additional safety hazards likely to be encountered that day. You will maintain site documentation related to the execution of your responsibilities such as but not limited to training records, air monitoring equipment calibration forms, air monitoring results, and accident report forms. As SSHO you will maintain communication with the Project Manager and OH&S Manager and coordinate with these individuals on any health and safety issues that may arise. You will also investigate any accidents/incidents or "near misses" and coordinate with the appropriate personnel for the implementation of corrective actions.

You are directed to review the project Accident Protection Plan as well as contract and task order requirements.

Sincerely,

Sean Liddy. CSP
Occupational Health & Safety Manager
Corporate Quality Control Manager

cc: Bill Lorenz, Program Manager,
Cabrera Project

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APPENDIX C
Independent Technical Review Procedures

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CABRERA SERVICES
RADIOLOGICAL • ENGINEERING • REMEDIATION

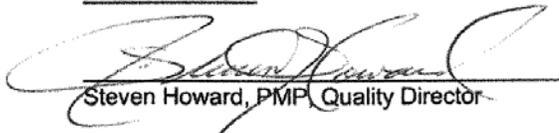
OPERATING PROCEDURE

FOR

INDEPENDENT TECHNICAL REVIEW

OP-082

PREPARED BY:


Steven Howard, PMP, Quality Director

3/9/2011
Date

APPROVAL BY:

Kim Nelson 2011.03.10 14:58:35 -05'00'
Kim Nelson, P.G, Vice President - Operations Date

1.0 PURPOSE

- 1.1 This procedure is designed to establish the corporate policy, process and requirements for performing an Independent Technical Review (ITR) during the preparation and revision of documents generated by Cabrera Services, Inc. It dictates when ITR is necessary, who conducts the review and the mechanism for documenting the process.

2.0 APPLICABILITY AND SCOPE

- 2.1 This procedure applies to all formal plans, procedures, and designs performed/developed by Cabrera Services that affect quality and/or outline work practices necessary to achieve contractual deliverables. It is required to be executed as part of the approval process and prior to implementation.
- 2.2 ITR may be implemented as a best management practices on non-formal (see Section 3.6) documents that are not distributed and controlled in accordance with Cabrera Services Operating Procedure OP-081, *Document Control* or when not used to satisfy contractual requirements. Using the system provides an additional layer of quality control and is encouraged for information that lead to or substantiate decisive documents.
- 2.3 The principles of ITR are to ensure document adequacy and quality prior to operational usage and/or submittal as a contractual deliverable. Reviews verify that the technical basis, logistics, methods, assumptions and numerical calculations (i.e., arithmetic, dimensions, figures, etc.) for a work product and submittal are valid for the specific scope of work being addressed. Some examples, not all inclusive, of ITR objectives:
 - 2.3.1 The engineering concepts are valid,
 - 2.3.2 The recommended plan is feasible, well thought-out and functional,
 - 2.3.3 A reasonable cost estimate has been developed,
 - 2.3.4 The safety of stakeholders has been adequately addressed,
 - 2.3.5 The engineering and other technical analyses are correct,
 - 2.3.6 The deliverable appropriately and thoroughly addresses technical aspects of the scope of work (SOW),
 - 2.3.7 The deliverable complies with corporate policies and quality management program requirements,
 - 2.3.8 It complies with customer expectations and contractual specifications (both government and non-government entities),
 - 2.3.9 The document provides clear instruction and properly relates to other project plans/procedures.
- 2.4 The ITR process is not intended to address spelling, grammar, format, or language in a work product. It is Best Management Practice, both for

quality and cost effectiveness, to ensure that the draft document has undergone editorial review prior to submittal for ITR. ITR actions are to be technical and/or logistical in nature; avoiding editorial changes/recommendations.

- 2.5 ITR forms and designation should not be used or applied to partially complete (pre-draft) products. Those development phases should avoid use of ITR language to enable proper bounding of quality levels.
- 2.6 One ITR iteration is to be regarded as sufficient for compliance with this procedure. However, the quantity and discipline areas engaged are to be determined by the Project Manager.
- 2.7 All submitted ITRs shall be completed before a product is returned to the preparer for final comment resolution.

3.0 DEFINITIONS

- 3.1 Best Management Practice - Methods or techniques that have been determined to be the most effective and/or practical means to address an issue.
- 3.2 Central Controlled Document Repository - Official location of CABRERA master documents (electronic or hardcopy format).
- 3.3 Controlled Document – A controlled document is the original document that must be maintained for uniformity, operational control, and tracking. There is one original for each document. It may be maintained on paper, or as an electronic file. The master copy (e.g., primary source document) is to be linked to its originating electronic file and made available for viewing on a secured network location.
- 3.4 Document Control Specialist - The individual responsible for maintaining and controlling distribution of all CABRERA master documents, including the retention of ITRs.
- 3.5 Document Preparer - The individual responsible for all phases of document development and revision.
- 3.6 Formal Document – Any plan, procedure, designs or other written manuscript developed and/or approved by CABRERA personnel that affect quality and/or outline work practices necessary to achieve contractual deliverables
- 3.7 ITR Ready - A stage within document development where internal technical review can be conducted and therefore labeled Initial (draft) or Revised Final (with revision sequencing)..
- 3.8 ITR Reviewer - The individual, based upon technical discipline, selected to conduct document assessment (See section 6.3).

- 3.9 Product - For purposes of this procedure, a 'product' is a written document regarded as a deliverable necessary to meet client/contractual obligation(s). May be referred to as 'plan', 'document' or 'deliverable' throughout this guidance.
- 3.10 ITR Reviewer- The individual, based upon technical discipline, selected to conduct document assessment (See section 6.3).

4.0 ACRONYMS

CABRERA	Cabrera Services, Inc
CCDR	Central Controlled Document Repository
DCS	Document Control Specialist
ITR	Independent Technical Review
OP	Operating Procedure
PgM	Program Manager
PM	Project Manager
SME	Subject Matter Expert
SOW	Scope of Work
USACE	United Stated Army Corps of Engineers

5.0 RESPONSIBILITIES

- 5.1 Project Manager (PM) –The PM is responsible for:
- 5.1.1 Identification of, through the project and/or operations team, the document preparer and ITR reviewer(s) required for each product.
 - 5.1.2 Determination of when a project deliverable or operational product should adhere to the objectives of this procedure and the application thereof. Also determines the quantity of ITRs and discipline areas addressed.
 - 5.1.3 Ensuring proper exchange of information and facilitates communication between preparer and ITR reviewers.
 - 5.1.4 Signing the ITR to certify that the ITR is complete and that all issues and concerns have been satisfactorily resolved.
 - 5.1.5 Reviewing final ITR forms to ensure that all signatures/approvals have been obtained during ITR process and leading up to control copy document distribution.
- 5.2 Document Preparer –
- 5.2.1 Upon initial (draft) document completion, or upon completion of revisions to a final (Rev. 0 or higher) document, the Document

- Preparer shall submit an electronic copy of the document and an ITR Form to the appropriate ITR reviewer. An example ITR Form is provided in Attachment A.
- 5.2.2 The Document Preparer is responsible for addressing all ITR comments submitted by the ITR reviewer, obtaining ITR form signatures, and submitting final, signed ITR to the DCS.
- 5.2.3 Ensuring proper labeling of document in accordance with OP-081, *Document Control*.
- 5.2.4 Ensuring the document is of sufficient quality in terms of spelling, formatting and flow prior to ITR submittal.
- 5.3 ITR Reviewer- The ITR reviewer is responsible for:
- 5.3.1 Reviewing documents in accordance with this procedure;
- 5.3.2 Providing verbal and/or written debriefing to the Document Preparer concerning all comments;
- 5.3.3 Completing and signing the ITR Form and returning signed form to Document Preparer.
- 5.3.4 The independent technical reviewer does not have the authority to enforce technical review comments. The authority for final comment resolution rests with the PM.
- 5.3.5 In most cases, ITR is performed by a single individual on completed, ready for publication, products only. However, based upon the complexity of the document, additional Reviewers may be required (i.e., a Project Engineer to review and stamp document, and a Health Physicist to review radiological data).
- 5.3.6 Designation of ITR Reviewer – Persons directly involved with the preparation of a document or report may not serve as independent technical reviewers for that same product. Initial documents are prepared by Subject Matter Experts (SMEs); subsequent revisions and modifications may be made by others. The PM, with concurrence of PgM, will identify appropriate ITR Reviewer(s) at project inception. Suggested ITR reviewers by subject matter are listed below:
- Safety and Health – Corporate Safety and Health Officer or designee
 - Radiation Protection – Cabrera Services Health Physics Center of Excellence, Corporate Radiation Safety Officer, or designee
 - Quality Assurance/Quality Control – Corporate Quality Director or designee

- Project Management/Program Management – Vice President of Operations or applicable Program Manager
 - Environmental Field Sampling – Senior Level Geologist/ Environmental Engineer
- 5.4 Quality Director– The Quality Director is responsible for:
- 5.4.1 Development of this instruction/policy.
 - 5.4.2 Evaluation of document control and review policies in accordance with industry standard guidance.
 - 5.4.3 Routine assessment of the application of this SOP at projects and offices.
- 5.5 Document Control Specialist (DCS) –The DCS is responsible for:
- 5.5.1 Ensuring that all final, signed ITR forms are maintained in the electronic Central Controlled Document Repository (CCDR). The CCDR is found at the following address: <G:\Library\Cabrera\CCDR>. The completed ITR Form will be retained by the DCS in accordance with OP-081, *Document Control*. Upon project closeout, the ITR form will be archived in long term storage (along with document) in accordance with OP-083, *Document Archiving and Storage*.
 - 5.5.2 Addressing request(s) regarding controlled documents from PMs and Quality Director.

6.0 PROCEDURE

An ITR process flowchart is presented as Attachment B.

6.1 Initial Document ITR Process –

The preparer submits the Draft document and associated ITR Form to designated ITR Reviewer.

- 6.1.1 ITR Reviewer shall verify, in accordance with applicable/related discipline area(s), that the document meets objectives as outlined in Section 2.0.
- 6.1.2 ITR Reviewer submits completed ITR Comment Response Form (Attachment A) to Document Preparer
- 6.1.3 The Document Preparer reviews and responds to all comments on Form. Formal comment responses are entered on Form.
- 6.1.4 Upon submission of the comment responses, Document Preparer will ensure that all comments are resolved in an acceptable manner. Comments do not necessarily have to be complied with, but each comment must be addressed. In cases where there is disagreement with a comment, it is Best Management Practice to initiate discussion between the

- Preparer, ITR reviewer and other SMEs as necessary. If an agreeable resolution is not reached the issue should be resolved by the PM with concurrence of PGM.
- 6.1.5 Once comments are resolved, both the Document Preparer and ITR reviewer complete and sign the appropriate portion of the Certification of Completion of ITR Form. Document Preparer ensures that pertinent changes to document are made.
- 6.1.6 The Document Preparer then submits the Certification of Completion of ITR Form and Comment Response form to the appropriate PM for final signature.
- 6.2 Initial Document Deliverable Process
- 6.2.1 The Document Preparer shall submit the fully signed ITR form, associated Comment Response Form and completed draft document to the DCS.
- 6.2.2 The DCS will file completed ITR form(s) for record retention purposes in accordance with OP-083, *Document Archiving and Storage*.
- 6.2.3 The DCS then prepares controlled copies of the completed draft document and distributes to controlled copyholders in accordance with OP-081, *Document Control*.
- 6.2.3.1 NOTE: Some documents may not require management via the formal Document Control process. In such instances, the Document Preparer (or other personnel identified by PM) shall be responsible for compiling, arranging and distributing the draft document(s) (e.g., Proposed Plans/Records of Decision, Data Summary Reports, Remedial Investigation Reports, and Construction Completion Reports).
- 6.2.4 Subsequent ITRs for draft final document revisions performed in response to agency comments are optional and left to the discretion of the PM.
- 6.3 Rev. O (or higher) Document ITR Process - Upon receipt of a revised Rev. O (or higher) document from the Document Preparer, the technical reviewer shall first ascertain, from the incorporated changes and ITR form, the scope of the revisions (major or minor).
- 6.3.1 If only minor edits (those that do not affect results, process, technical guidance or conclusions) have been made, then technical review should consist of a read through of the document to insure that the changes made were appropriate and that no more are necessary. The technical reviewer shall confirm that editorial changes do not cause deviation from the conclusion(s) and/or directions provided by the document.

Independent Technical Review

Rev. 0

6.3.2 If major changes have been made, then a full ITR will be conducted as described in Section 6.1.

6.4 Rev. O (or higher) Document Deliverable Process

6.4.1 If a full ITR was performed, the Document Preparer shall submit the fully signed ITR form, associated Comment Response Form and completed Rev. O (or higher) document to the DCS. If no ITR was performed, only the revised document will be submitted.

6.4.2 The DCS will file completed ITR form for record retention purposes in accordance with OP-083, *Document Archiving and Storage*.

6.4.3 The DCS then prepare controlled copies of the completed Rev. O (or higher) document and distribute to controlled copyholders in accordance with OP-081, *Document Control*.

6.4.4 Document Preparer (or other personnel identified by PM) shall be responsible for preparing and distributing uncontrolled document(s), as described in section 6.2.3.1.

7.0 REFERENCES

- 7.1 ANSI/ISO 2008. American National Standard, Quality Management Systems – Requirements, ANSI/ISO/ASQ(E) Q9001-2008. American Society for Quality. November 15.
- 7.2 Cabrera Services, Inc. OP-081, *Document Control*.
- 7.3 Cabrera Services, Inc. OP-083, *Document Archiving and Storage*.

8.0 ATTACHMENTS

- Attachment - A Independent Technical Review Form
- Attachment - B ITR Process Flowchart

Independent Technical Review

Rev. 0

Attachment A
Independent Technical Review Form

Independent Technical Review

Rev. 0

COMPLETION OF INDEPENDENT TECHNICAL REVIEW (ITR)

Cabrera Services, Inc. (CABRERA) has completed the [TITLE OF DOCUMENT] [PROJECT NAME] [LOCATION]. Notice is hereby given that an Independent Technical Review (ITR) has been conducted appropriate to the level of risk and complexity as defined in the applicable project work plans and associated quality protocols. During the ITR, the document was assessed for adequacy; completeness and clarity necessary to achieve the objectives of the scope of work; including whether the product meets the customer's needs consistent with law and existing [CUSTOMER] policy. This review included items such as technical assumptions; methods, procedures, and material used in analyses; evaluation of alternative(s); industry regulations and standard practices; best management practices; engineering components; the appropriateness of data used and level of data obtained; and reasonableness of end-state.

(signature) CABRERA Plan/Report Preparer

Date

(signature) CABRERA Project Manager

Date

(signature) CABRERA Independent Technical Reviewer

Date

CERTIFICATION OF INDEPENDENT TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are included on the attached Comments and Response Form.

As noted above, all concerns resulting from independent technical review of the project have been considered.

(signature) CABRERA Project Manager

Date

Independent Technical Review

Rev. 0

**Independent Technical Review
Comments and Response Form**

Plan Name: _____

Project: _____

Project No: _____

Reviewer: _____

Prepared by: _____

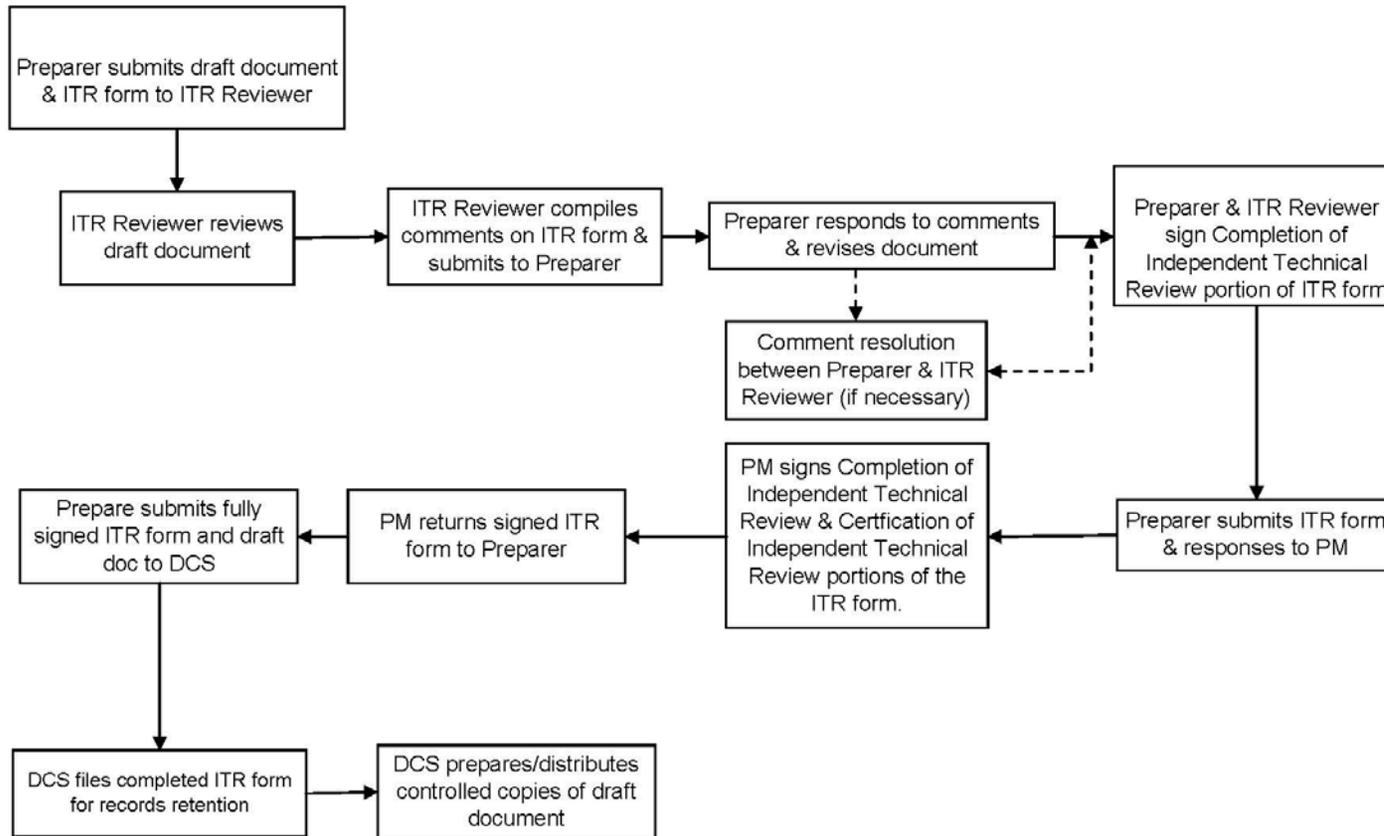
Date: _____

Section/ Page	Description	Comment	Response & Action	Status

Attachment B
ITR Process Flowchart

Independent Technical Review

Rev. 0



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